

Field Guide to Construction Site Dewatering

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CONSTRUCTION DIVISION



FOREWORD

This manual was prepared by the Office of Environmental Engineering, California Department of Transportation (Caltrans). The manual establishes uniform policies and guidelines to support dewatering operations on construction sites. It is neither intended as, nor does it establish a legal standard for those functions. The guidelines herein are for the information and guidance of the resident engineers and employees of the Department and its contractors.

The guidance and instructions published herein are subject to amendment as conditions and experience warrant. The loose-leaf form of this manual was chosen because it facilitates change and expansion. New or amended policies or procedures will be issued as additional or replacement pages in the format of this manual.

Special situations may warrant variation from the published policies and guidelines. This manual is not a textbook or a substitute for engineering or technical knowledge, experience or judgment.

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TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1.	What is Considered a Dewatering Operation?	1
1.2.	What are the Permits that Regulate Dewatering Operations?.....	1
1.3.	Do All Dewatering Operations Require an NPDES Permit?.....	2
1.4.	Why are Dewatering Operations Regulated?.....	2
1.5.	What are Considered Pollutants?	3
1.6.	What are the Options for Managing Dewatering Operations?.....	3
1.7.	What is the Resident Engineer’s Responsibility for Dewatering Permits Issued Prior to Construction?	4
1.8.	How Do You Use This Field Guide?.....	4
2.0	SELECTING A DEWATERING MANAGEMENT OPTION.....	5
2.1	Assess Water Quality	7
2.2	Estimate Discharge Parameters.....	8
2.3	Is it a Qualifying Non-Storm Water Discharge?.....	9
3.0	DEWATERING MANAGEMENT DETAILS.....	10
3.1	Manage Water Containing Pollutants Other than Sediment	10
3.2	Retain Water on Site	11
3.3	Discharge to Adjacent Land or Facility Owned by Others	12
3.4	Discharge to a Sanitary Sewer System	13
3.5	Transport Off Site Using a Transportation, Storage and Disposal Contractor	14
3.6	Discharge Water to a Storm Drainage System or a Water of the U.S. Under the NPDES Statewide Permit for Caltrans	15
3.7	Discharge Water to a Storm Drainage System or a Water of the U.S. Under a RWQCB NPDES General Permit or Site-Specific NPDES Permit	17
APPENDIX A:	RWQCB Regional Maps with Caltrans District Boundaries RWQCB Contacts RWQCB NPDES Dewatering Requirements Summaries	
APPENDIX B:	Sediment Treatment Options	
APPENDIX C:	Water Quality and Discharge Parameters Assessment Form Dewatering Operations Monitoring Form	
APPENDIX D:	RWQCB NPDES General Permits that Regulate Dewatering	

LIST OF FIGURES

Figure 1	General Dewatering Operation Process	1
Figure 2	Dewatering Operations Management Flow Chart.....	6
Figure 3	Dewatering Under the NPDES Statewide Permit for Caltrans	16
Figure 4	General Process of Dewatering Under a Regional NPDES Permit	18

LIST OF TABLES

Table 1	Water Quality Assessment Example	7
Table 2	Discharge Parameter Calculation Sheet Example	8
Table 3	Typical Pump Flow Rates	8
Table 4	Qualifying Non-Storm Water Discharges in Regions 3, 5 or 7	9
Table 5	Qualifying Non-Storm Water Discharges in Region 9	9
Table 6	Use Assessment: On-Site Retention	11
Table 7	Use Assessment: Discharge to Adjacent Land or Facility Owned by Others.....	12
Table 8	Use Assessment: Discharge to a Sanitary Sewer System.....	13
Table 9	Use Assessment: Transport Off Site Using Transportation, Storage and Disposal Contractor ..	14
Table 10	Caltrans Districts and RWQCB General Permits.....	17

1.0 INTRODUCTION

This Field Guide provides Caltrans Resident Engineers and field staff with the information necessary to manage dewatering operations on construction sites to maintain compliance with Federal and State water quality protection regulations.

1.1. WHAT IS CONSIDERED A DEWATERING OPERATION?

For Caltrans construction projects, dewatering operations are practices that manage the discharge of pollutants when non-storm water or accumulated precipitation must be removed from a work location so that construction work may be accomplished. Typical sources of non-storm waters that are dewatered from Caltrans construction sites include, but are not limited to, groundwater, water from cofferdams, water diversions, and waters used during construction activities that must be removed from a work area. Each of the nine Regional Water Quality Control Boards (RWQCBs), which regulate dewatering operations through the National Pollutant Discharge Elimination System (NPDES), has the authority to define the types of dewatering effluent that are regulated under an NPDES permit within its Region.

Figure 1 illustrates the general dewatering operation process.

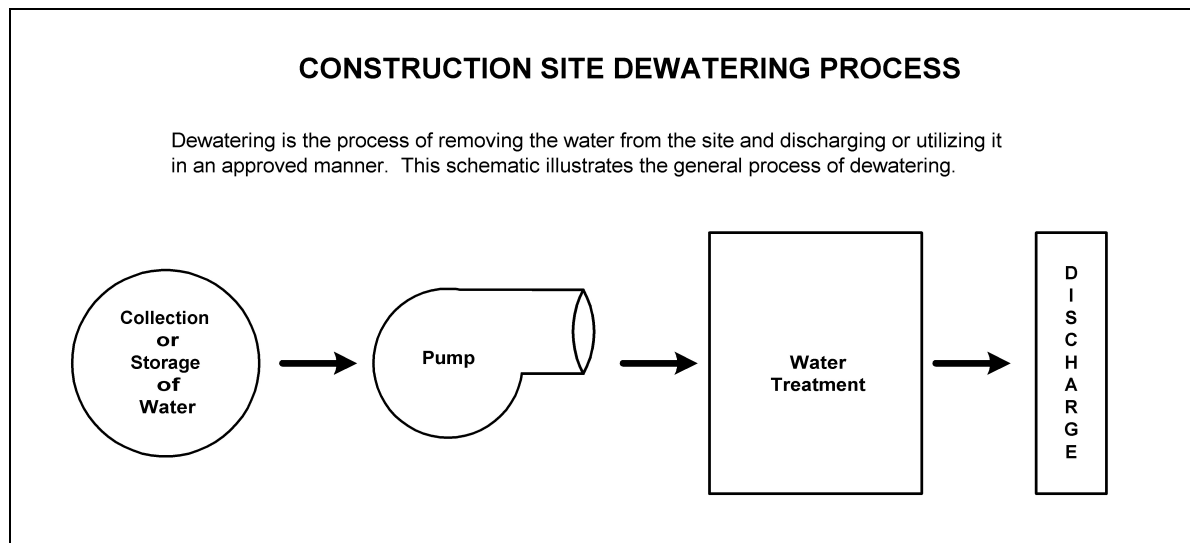


Figure 1 General Dewatering Operation Process

1.2. WHAT ARE THE PERMITS THAT REGULATE DEWATERING OPERATIONS?

Accumulated Precipitation (Storm Water) Dewatering Operations

In all RWQCB Regions except 1 and 2, accumulated precipitation (accumulated storm water) from Caltrans construction activities may be discharged to a storm drain or water body in accordance with the “*National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans)*” (CAS000003, Order No. 99-06-DWQ), issued July 15, 1999. This permit regulates all Caltrans activity statewide, including its construction activity, and incorporates all the provisions of the NPDES General Construction Permit (CAS000002) by reference. In this Field Guide, Permit CAS000003 is referred to as the NPDES Statewide Permit for Caltrans.

In Regions 1 and 2 concurrence of the RWQCB is required prior to discharging accumulated precipitation under the Caltrans permit, or the RWQCB may require a separate permit.

Non-Storm Water Dewatering Operations

Discharges of non-storm water, such as groundwater or storm water combined with non-storm water, are regulated under General NPDES Permits or site-specific NPDES permits issued by the RWQCB.

In Regions 3, 5, 7, and 9, qualifying discharges of non-storm water are covered under the NPDES Statewide Permit for Caltrans. Refer to Section 2.3 for details.

Numerous RWQCBs have issued General NPDES Permits to regulate specific types of dewatering discharges. RWQCB Regions and applicable General NPDES Permits are identified in the accompanying table and discussed in Section 3.7. Copies of the General NPDES Permits referenced in the table are provided as Appendix D of the Field Guide.

Appendix A contains maps of the nine RWQCB regions with the Caltrans District boundaries identified, RWQCB contact information, and a brief summary of permit requirements.

Section 2 of the Field Guide provides flow charts that guide the Resident Engineer through the process of determining if the dewatering operation is subject to an NPDES permit, and if so, under which permit the operation is regulated.

Caltrans District	RWQCB General Permits
1	Region 1 – General Permit 93-61 Region 5 – General Permit 5-00-175
2	Region 1 – General Permit 93-61 Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
3	Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
4	Region 1 – General Permit 93-61 Region 2 – No General Permit Region 3 – No General Permit Region 5 – General Permit 5-00-175
5	Region 2 – No General Permit Region 3 – No General Permit Region 5 – General Permit 5-00-175
6	Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
7	Region 3 – No General Permit Region 4 – General Permit 97-043, 97-045 Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
8	Region 6 – General Permit 6-98-36, 6-98-75 Region 7 – No General Permit Region 8 – General Permit 98-67 Region 9 – General Permit 2000-90, 2001-96
9	Region 6 – General Permit 6-98-36, 6-98-75
10	Region 2 – No General Permit Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
11	Region 7 – No General Permit Region 9 – General Permit 2000-90, 2001-96
12	Region 8 – General Permit 98-67 Region 9 – General Permit 2000-90, 2001-96

1.3. DO ALL DEWATERING OPERATIONS REQUIRE AN NPDES PERMIT?

No. If the water meets requirements so that it can be discharged to a sanitary sewer, reused on the construction site, discharged by agreement to an adjacent landowner/facility, or transported off site by a transportation, storage, and disposal (TSD) contractor, an NPDES permit is not needed.

1.4. WHY ARE DEWATERING OPERATIONS REGULATED?

Untreated water from construction dewatering operations may contain pollutants that, if discharged to a storm drainage system or natural water course, would cause the water quality standards of the receiving water to be violated. The intent of Federal and State regulations is to prevent discharges from dewatering operations from contributing to the violation of water quality standards.

1.5. WHAT ARE CONSIDERED POLLUTANTS?

Specific pollutants are defined in the Federal Clean Water Act and in the California Water Code. For the purposes of this Field Guide, pollutants are classified into two groups:

- **Sediment.** Sediment is the most common pollutant associated with dewatering operations on construction sites. *Most dewatering operations will require that the water be treated to remove some level of sediment.* Detailed information about sediment removal methods and technologies have been provided in Appendix B of this Field Guide.
- **Other pollutants.** This includes all other pollutants as defined in Federal and State laws and regulations. These pollutants tend to be site-specific and are often associated with current or past use of the construction site or adjacent land. Common “other pollutants” on construction sites include: nitrogen and phosphate from fertilizers; organic materials from plant waste; metals such as arsenic, cadmium, copper, and lead; and constituents that affect pH or hardness. Other pollutants include oil, grease, pesticides, solvents, fuels, trash, and bacteria from human/animal wastes.

1.6. WHAT ARE THE OPTIONS FOR MANAGING DEWATERING OPERATIONS?

The options for managing dewatering operations depend on the condition and volume of the water to be discharged and the conditions of the construction site. For example, under the appropriate conditions:

- Collected water from dewatering can be **managed on the construction site**, without discharging off the site or to a water body or drainage system.
- Discharges can be made by agreement to **adjacent land or to a facility owned by others**.
- Discharges can be made by agreement to the **sanitary sewer system**
- Collected water from dewatering can be removed from the construction site using a **commercial transportation, storage, and disposal facility (TSD)** contractor.
- Discharges to the **storm drainage system or to a water of the U.S. under the NPDES Statewide Permit for Caltrans** can be made for the following types of dewatering discharges:
 - Discharges of accumulated precipitation in RWQCB Regions other than 1 and 2.
 - Discharges of non-storm water in RWQCB Regions 3, 5 and 7 having a volume of less than 250,000 gallons per day (gpd) and a duration of four months or less.
 - Discharges of groundwater in RWQCB Region 9 to a surface water other than San Diego Bay having a volume of less 100,000 gpd that does not contain pollutants.
- Discharges can be made to the **storm drainage system or water of the U.S. under a General NPDES Permit or site-specific NPDES permit issued by the RWQCB.**

Section 2 provides flow charts that guide the Resident Engineer through the process of determining which management options are appropriate for dewatering operations in each Region.

1.7. WHAT IS THE RESIDENT ENGINEER'S RESPONSIBILITY FOR DEWATERING PERMITS ISSUED PRIOR TO CONSTRUCTION?

For some construction projects, dewatering requirements are identified during the planning and design phases, and the appropriate NPDES permit that regulates dewatering is obtained prior to construction.

If an NPDES permit has already been issued to regulate dewatering for the project, the Resident Engineer is responsible for ensuring that the contractor complies with the discharge, monitoring and reporting provisions specified in the permit.

1.8. HOW DO YOU USE THIS FIELD GUIDE?

The Field Guide directs the Resident Engineer through the process of evaluating dewatering operations on the construction site to ensure that the contractor complies with the appropriate regulatory requirements. The steps in this process are as follows:

1. Characterize the water to be managed. Follow the instructions in Sections 2.1 through 2.3 to characterize the effluent associated with the dewatering operation.

These sections guide the Resident Engineer through a series of questions and calculations for assessing water quality and estimating discharge parameters that can affect selection of management options. Appendix C contains a form that the Resident Engineer can use to aid in the assessment.

2. Select an appropriate dewatering management option following the flow chart in Section 2.

Use the flow chart in Figure 2 to identify the possible management options for the dewatering operation based on the assessment performed in step (1). Section 3 describes management options in more detail and provides guidance for determining if the option is appropriate for the dewatering operation.

3. If discharging water to a storm drain or water of the U.S.:

- Follow the guidance in Section 3.6 if the discharge is authorized under the NPDES Statewide Permit for Caltrans, or Section 3.7 if a separate RWQCB permit is required.
- Refer to Appendix A to determine which RWQCB has jurisdiction over the project and for a summary of applicable General NPDES Permit requirements.

4. Refer to Appendix B to identify sediment treatment options.

Appendix B describes and compares some methods and technologies for removing sediment from dewatering effluent.

2.0 SELECTING A DEWATERING MANAGEMENT OPTION

The Dewatering Operations Management Flow Chart (Figure 2) guides the Resident Engineer through the process of identifying feasible options for managing a dewatering operation and whether or not an NPDES permit applies to the operation. The flow chart contains references to other sections of the Field Guide for additional explanation or guidance.

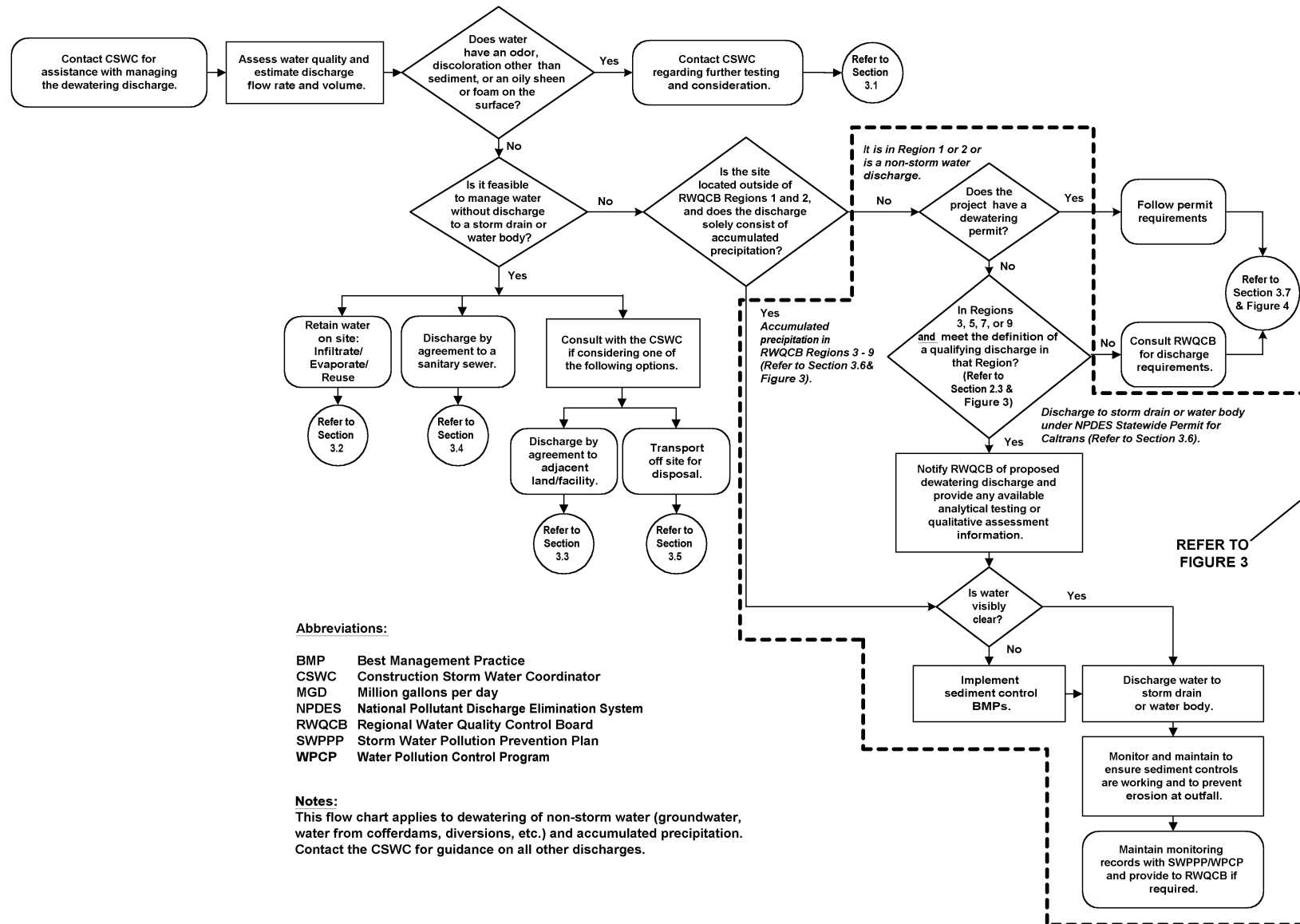


Figure 2 Dewatering Operations Management Flow Chart

2.1 ASSESS WATER QUALITY

The quality of the water from dewatering operations determines which management options are feasible for the construction site. Each management option has a different standard for water quality requirements. For instance, the sanitary sewer may accept water with pollutants that cannot be discharged to the storm drain without treatment.

- 1) To aid in the assessment, use the **Water Quality Assessment** section of the *Water Quality and Discharge Parameters Assessment Form* in Appendix C and duplicated in Table 1 below. This form guides the Resident Engineer through a set of water quality questions that can be completed onsite.
 - a) *For assessing accumulated precipitation*, complete one form for each accumulation location that is expected to have unique characteristics. For example, if rainwater accumulates in multiple depressions adjacent to each other (assumed to have the same soil, land use, etc.), a single assessment can be made for the rain event. If rainwater accumulates in multiple locations distant from each other, assess the water quality at each location for the event.
 - b) *For assessing non-storm water* (groundwater, cofferdam, diversion water etc.), complete one form for each dewatering location that is expected to have unique characteristics. For example, if groundwater is being removed from multiple areas adjacent to each other (assumed to have the same soil, land use, etc.), a single assessment can be made for the rain event. If groundwater is being removed at multiple locations distant from each other, assess the water quality at each location.
- 2) If you answered YES to any of the Water Quality Assessment questions on the form, *or* you suspect that the water contains pollutants other than sediment, contact the Construction Storm Water Coordinator (CSWC) for assistance with additional testing and management options. Refer to Section 3.1 for more information about managing water containing pollutants other than sediment.
- 3) If you answered NO to all of the Water Quality Assessment questions on the form, estimate the discharge parameters, as described in Section 2.2.
- 4) File the completed forms with the Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP).

Table 1 Water Quality Assessment Example

Water Quality Assessment					
The following questions provide an initial assessment of the quality of the water to be discharged from the dewatering operation.					
Common Sense Test	1. Review the project records. Is there any reason to suspect that the water may be polluted by something other than sediment?				No Yes
	2. Is the water located in an area of known contamination?				No Yes
Sight Test	Does the water have an abnormal visual feature, such as (circle): Oily Sheen Floating Foam Murky Appearance Unusual Color Other				
Smell Test	Does the water have an odor? Possible odors include gasoline, petroleum, ammonia, sewage, etc.				No Yes
If you answered YES to any of the above questions, explain:					
If you answered YES to any of the questions in the assessment or suspect that the water contains pollutants other than sediments, contact the Construction Storm Water Coordinator (CSWC) for assistance with additional testing and management options.					

2.2 ESTIMATE DISCHARGE PARAMETERS

Most RWQCBs and sanitary sewer districts have specific discharge requirements based on the flow rate, daily volume, total volume, and duration of the dewatering operation.

To estimate discharge parameters, use the **Discharge Parameters** section of the *Water Quality and Discharge Parameters Assessment Form* in Appendix C and duplicated in Table 2 below. This form guides the Resident Engineer through a set of calculations that can be completed onsite.

The pump sizes and flow rates in Table 3 can be used to aid in this estimate. The pump discharge flow and horsepower will vary depending on the system's total

dynamic head (distance and height required to pump).

- 1) Complete the Discharge Parameters form as follows:
 - a) *For assessing accumulated precipitation*, complete one form for each accumulation location for the rain event.
 - b) *For assessing non-storm water (groundwater, cofferdam or diversion water, etc.)*, complete one form for each dewatering location.
- 2) File the completed forms with the SWPPP or WPCP.

Table 2 Discharge Parameter Calculation Sheet Example

DISCHARGE PARAMETERS	
To estimate water discharge parameters, answer the following questions and document the results below.	
Origin of Water	Is the discharge from (circle one): Groundwater Cofferdam/Diversion Accumulated Precipitation Other (specify)
	Will the discharge be intermittent (associated with each rainstorm) or continuous (dewatering one area for a long period)? (circle) Intermittent Continuous
Daily Flow Rate	Estimate the total quantity of water and proposed discharge rate for each daily discharge event (Q_d , gallons per day). This can be estimated from the pump discharge rate and the expected daily total of hours the pump will be run. $Q_d, \text{gpd} = \text{___ gals/min pump rate} \times 60 \text{ mins/hr} \times \text{___ hrs discharge}$ $Q_d = \text{___ gpd}$
Duration	What is the expected duration of the dewatering operation? _____ (days)
Total Volume	What is the estimated total discharge for the life of the project (V_T)? To estimate the total discharge, multiply the daily flow rate (Q_d) by the estimated duration. $V_T = \text{___ Gallons}$
Comments:	

Table 3 Typical Pump Flow Rates

Pump Size (submersible)	Typical Flow Rates*
1.5-inch	90 to 120 gpm
2-inch	90 to 300 gpm
3-inch	300 to 800 gpm
4-inch	400 to 1300 gpm
6-inch	400 to 1800 gpm

*Based on manufacturers' general information

2.3 IS IT A QUALIFYING NON-STORM WATER DISCHARGE?

In RWQCB Regions 3, 5, 7, and 9, qualifying discharges of non-storm water to a storm drainage system or water of the U.S. are allowed in accordance with the NPDES Statewide Permit for Caltrans.

In **Regions 3, 5, and 7**, qualifying discharges are minor discharges of non-storm water (groundwater, water from cofferdams or diversions, storm water commingled with non-storm water) that are free of pollutants other than sediment. A minor discharge is defined as a discharge that (1) is less than 0.25 mgd and (2) has a duration of four or fewer months continuous discharge, or the equivalent of four months non-continuous discharge. For qualifying discharges, the RWQCB must be notified and approve the proposed discharge prior to any removal of water from the construction site. For all other discharges of non-storm water, contact the RWQCB for guidance.

In **Region 9**, discharges of groundwater to surface waters other than the San Diego Bay are allowed under the NPDES Statewide Permit for Caltrans if the discharge is less than 0.1 mgd and does not contain pollutants. For qualifying discharges, the RWQCB must be notified and approve the proposed discharge prior to any removal of water from the construction site. For all other discharges of non-storm water, contact the RWQCB for guidance.

Other Regions do not allow the discharge of non-storm water without a RWQCB NPDES permit or permission.

The questions in Tables 4 and 5 provide guidance for determining if a non-storm water dewatering operation qualifies for discharge under the NPDES Statewide Permit for Caltrans in Regions 3, 5, 7, or 9.

Table 4 Qualifying Non-Storm Water Discharges in Regions 3, 5 or 7

1) Estimate the flow (gallons per day) to be discharged:
a) On the Discharge Parameters section of the <i>Water Quality and Discharge Parameters Assessment Form</i> (Appendix C), estimate the Daily Flow Rate (Q_d) to be discharged from each of the dewatering locations in gallons per day (gpd).
b) Add the Daily Flow Rates for all dewatering locations together. Total = _____ gpd
c) If the total is greater than 0.25 mgd (> 250,000 gpd), the dewatering operation does not qualify for regulation under the NPDES Statewide Permit for Caltrans. Contact the RWQCB for guidance.
d) If the total is less than 0.25 mgd, continue with (2).
2) What is the duration of the discharge? Duration = _____ (hours/days/months)
a) If less than 4 months continuous, or the equivalent of 4 months non-continuous, this is a qualifying discharge. Notify the RWQCB of the proposed discharge and discharge under the NPDES Statewide Permit for Caltrans, as described in Section 3.6.
b) If it exceeds 4 months continuous, or the equivalent of 4 months non-continuous, the dewatering operation does not qualify for regulation under the NPDES Statewide Permit for Caltrans. Contact the RWQCB for guidance.

Table 5 Qualifying Non-Storm Water Discharges in Region 9

1) Is it a discharge of unpolluted groundwater to a surface water other than San Diego Bay?
a) If YES, continue with question (2).
b) If NO, the dewatering operation does not qualify for regulation under the NPDES Statewide Permit for Caltrans. Contact RWQCB Region 9 for guidance.
2) Estimate the flow (gallons per day) to be discharged:
a) On the Discharge Parameters section of the <i>Water Quality and Discharge Parameters Assessment Form</i> (Appendix C), estimate the Daily Flow Rate (Q_d) to be discharged from each of the dewatering locations in gallons per day (gpd).
b) Add the Daily Flow Rates for all dewatering locations together. Total = _____ gpd
c) If the total is greater than 0.1 mgd (100,000 gpd), the dewatering discharge does not qualify for regulation under the NPDES Statewide Permit for Caltrans. Contact RWQCB Region 9 for guidance.
d) If the total is less than 0.1 mgd (100,000 gpd), the dewatering discharge may qualify for regulation under the NPDES Statewide Permit for Caltrans. Contact RWQCB Region 9 for approval.

3.0 DEWATERING MANAGEMENT DETAILS

Details of the management options for water resulting from dewatering operations are described in this section.

3.1 MANAGE WATER CONTAINING POLLUTANTS OTHER THAN SEDIMENT

Definition

Water that contains, or is suspected of containing, pollutants other than sediment is typically subject to additional testing and evaluation prior to the selection of an appropriate dewatering management option. Pollutants defined in Section 502(6) of the Federal Clean Water Act are incorporated into the California Water Code (13373).

Implementation

The Resident Engineer contacts the CSWC for assistance with additional testing and evaluation. In determining additional testing requirements, the preferred management option should be considered. Each agency or entity (sanitary sewer, TSD contractor, RWQCB, etc.) will have specific tests required prior to accepting water for discharge. Based on test results, the following management options may be considered for potentially polluted water:

- Water may meet requirements for discharge to a sanitary sewer. Refer to Section 3.4 for this management option.
- Water may be transported from the construction site by a TSD contractor. Refer to Section 3.5 for more information about this management option.
- Water may be treated and discharged in accordance with a separate NPDES permit issued by the RWQCB. Refer to Section 3.7 for more information about this management option.



- If water quality testing shows that water meets RWQCB basin plan requirement, the RWQCB may allow it to be discharged under a regional NPDES permit or the NPDES Statewide Permit for Caltrans. Discuss this option with the CSWC and the local RWQCB.

Advantages

- Ensures that dewatering operations containing pollutants other than sediment are managed in compliance with NPDES requirements.

Limitations

- Time required to test water and obtain permit.
- Cost of pre-discharge and on-going testing, if required.
- Cost of treating water to remove pollutants, if required.

3.2 RETAIN WATER ON SITE

Definition

Accumulated water is retained on site rather than transported or discharged off site. Retained water evaporates, infiltrates into the soil, or is used on the site for dust control, irrigation, or other construction-related purposes. Review the questions in Table 5 below to assess if this option is appropriate.

Implementation

This option entails (1) dispersing the water over a vegetated area and allowing the water to infiltrate into the soil or evaporate, or (2) storing the water in tanks for later use on the construction site.



Water Quality

- Appropriate for water free of pollutants other than sediment.
- Minor amounts of other non-hazardous pollutants may be acceptable with the agreement of the CSWC.

Advantages

- No permits required.
- Best Management Practice (BMP) NS-1, "Water Conservation Practices."

Limitations

- Generally not feasible for large quantities or high flow rates.
- May require space for water storage tanks.
- May require treatment for sediment removal.
- Requires ponded water to be infiltrated or evaporated within 72 hours.

General Requirements

- If discharging for infiltration, the water must infiltrate/evaporate so that it does not remain ponded for more than 72 hours.
- If necessary, treat water to remove sediment prior to reuse on site. Refer to Appendix B for sediment treatment options.
- Retained water should not be reused near inlets or other areas where it may be inadvertently discharged from the site.
- Removed sediments must be handled properly. Retained sediment must be either dispersed onsite and stabilized, or disposed of at a disposal site approved by the Resident Engineer.

Table 6 Use Assessment: On-Site Retention

<u>Can Water be Retained On Site?</u>
1) Answer the following questions to determine the feasibility of using this option:
a) Is the water free of pollutants other than sediment? YES NO
b) Can the operation be managed so that <i>no water</i> leaves the construction site? YES NO
c) Can the estimated volume of water as calculated on the Discharge Parameters section of the <i>Water Quality and Discharge Parameters Assessment Form</i> (Appendix C) be accommodated on the site? YES NO
d) Will ponded water evaporate or infiltrate within 72 hours of collection? YES NO
e) Can the water be treated for sediment if necessary for the anticipated reuse? YES NO
2) If you answered YES to all of the questions above, consider retaining ownership of the water on site.
3) If you answered NO to any of the above questions, this option is not feasible for the site. Consider other management options.

3.3 DISCHARGE TO ADJACENT LAND OR FACILITY OWNED BY OTHERS

Definition

Discharge of accumulated water to adjacent land or into another owner's facility (e.g., settling basin, irrigation) by special agreement. A fee may be required by the landowner or facility. Review the questions in Table 6 below to assess if this option is appropriate.



Implementation

This agreement should include provisions for any monetary compensation, discharge prohibitions, pre-discharge testing, and expected final condition of the area or facility to be used. If this option is considered for groundwater, discuss all regulatory and legal implications with the CSWC.

Water Quality

- An option generally appropriate for water that does not contain pollutants other than sediment.

Advantages

- No NPDES permit required.

Limitations

- May require treatment for sediment removal.
- Requires a written agreement.
- May require a fee.

General Requirements

- The discharge must be managed so that it cannot discharge to a storm drain or water body.
- If sediment filtration is required, the sediment must be properly managed. Retained sediment must be either dispersed onsite and stabilized, or disposed of at a disposal site approved by the Resident Engineer.
- Water should be discharged in accordance with a written agreement from the property owner.
- The discharge must be monitored to assure compliance.
- The discharge must not create a hazard at the discharge point.
- Pre-discharge chemical testing (if required) should be performed in accordance with the agreement, and the results provided to the owner prior to the discharge.

Table 7 Use Assessment: Discharge to Adjacent Land or Facility Owned by Others

<u>Can Water be Discharged to an Adjacent Land or Facility?</u>	
1)	Answer the following questions to determine the feasibility of using this option:
a)	Is there an appropriate landowner or a facility adjacent to the site that is willing to negotiate an agreement to accept your discharge? YES NO
b)	Is the water free of pollutants other than sediment? YES NO
c)	Can the estimated volume of water as calculated on the Discharge Parameters section of the <i>Water Quality and Discharge Parameters Assessment Form</i> (Appendix C) be accommodated by the land/facility? YES NO
d)	Can the water be treated for sediment (if necessary) prior to discharge? YES NO
e)	If groundwater, does the RWQCB allow unrestricted discharge of groundwater to land? YES NO
2)	If you answered YES to all of the questions above, consider negotiating an agreement to discharge to the land/facility.
3)	If you answered NO to any of the above questions, this option is not feasible for the site. Consider other management options.

3.4 DISCHARGE TO A SANITARY SEWER SYSTEM

Definition

Discharge of accumulated water to a public sanitary sewer system (city, county, etc.) through a permit with the local agency. A fee may be required by the sanitary sewer agency. Review the questions in Table 7 below to assess if this option is appropriate.

Implementation

Must obtain permit from the local sanitary sewer agency. This permit will include provisions for any fees, discharge limitations/prohibitions, and requirements for pre-discharge testing and reporting. If this option is used, an NPDES permit is not required for the dewatering operation.

Water Quality

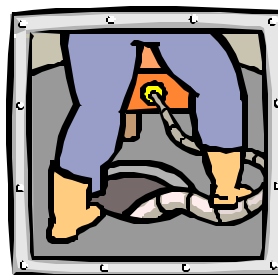
- Generally appropriate for water that may contain sediment and other pollutants.
- Acceptable pollutants and pollutant levels are defined by the sanitary sewer agency.

Advantages

- Acceptable levels of pollutants may be discharged without pretreatment.
- Water may be pumped directly from the project site with no intermediate transportation.
- No NPDES permit required.

Limitations

- May require treatment for sediment removal.
- Requires a permit from the sanitary sewer district.
- May require a fee.
- Time required to negotiate agreement and receive permission from sanitary sewer agency.
- May require pre-discharge chemical testing.



General Requirements

- A permit is required from the sanitary sewer agency to specify requirements for chemical quality of the water, discharge flow rates and quantities.
- Discharge water in accordance with written agreement from the sanitary sewer agency. The discharge may require monitoring to assure compliance.
- Pre-discharge chemical testing (if required) should be performed in accordance with sanitary sewer agency policy with results provided to the agency prior to discharge.
- Discharge records may be required to be submitted to the sanitary sewer district.
- Water may need to be treated for sediment prior to discharge.
- If sediment filtration is required, the removed sediment must be properly managed. Retained sediment must be either dispersed onsite and stabilized, or disposed of at a disposal site approved by the Resident Engineer.

Table 8 Use Assessment: Discharge to a Sanitary Sewer System

<u>Can Water be Discharged to a Sanitary Sewer System?</u>	
1)	Answer the following questions to determine the feasibility of using this option: <ul style="list-style-type: none"> a) Is the local sanitary sewer agency willing to negotiate an agreement to accept the discharge? b) Is the water quality acceptable to the agency or can it be treated to meet requirements? c) Is the estimated volume of water as calculated on the Discharge Parameters section of the <i>Water Quality and Discharge Parameters Assessment Form</i> (Appendix C) acceptable to the sanitary sewer agency?
2)	If you answered YES to all of the questions above, consider negotiating an agreement to discharge to the sanitary sewer. Contact the CSWC for assistance.
3)	If you answered NO to any of the above questions, this option is not feasible. Consider other management options.

3.5 TRANSPORT OFF SITE USING A TRANSPORTATION, STORAGE AND DISPOSAL CONTRACTOR

Definition

Transport of water off the construction site using a commercial TSD contractor. A licensed commercial TSD contractor can remove, transport and dispose of (or treat and recycle) polluted water. Review the questions in Table 8 below to assess if this option is appropriate.

Implementation

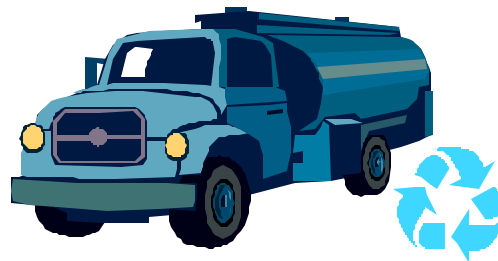
Contact the District CSWC for assistance. The use of a TSD contractor will require a fee and testing prior to pickup and transportation.

Water Quality

This option is typically appropriate for water with toxic pollutants that cannot be discharged elsewhere, although some TSD contractors will accept clean water. This option would be feasible if the water were polluted in a manner that makes it more cost effective to transport the water off site than to treat it for discharge at the site.

Advantages

- Can be used to dispose of highly polluted water, including water polluted with hazardous materials.
- No NPDES permit required.



Limitations

- May be very expensive (~\$0.20 – \$0.30 per gallon plus a solids surcharge, \$70 per hour for a vacuum truck, and cost for analytical testing).
- Requires time for testing.
- Not viable for prolonged periods of dewatering.
- On-site collection/storage area may require secondary containment.

General Requirements

- Chemical testing is required.
- Uniform hazardous waste manifests will be required if water is hazardous.
- Contact the CSWC for assistance with water that must be managed using a TSD contractor.

Table 9 Use Assessment: Transport Off Site Using Transportation, Storage and Disposal Contractor

<u>Can Water be Transported Off Site for Disposal?</u>	
1)	Answer the following questions to determine the feasibility of using this option:
a)	Is the water quality acceptable to the TSD? YES NO
b)	Is the estimated volume of water as calculated on Discharge Parameters section of the <i>Water Quality and Discharge Parameters Assessment Form</i> (Appendix C) acceptable? YES NO
c)	Is the fee acceptable to the contract budget? YES NO
2)	If you answered YES to all of the questions above, consider negotiating an agreement to discharge to the TSD facility. Contact the District CSWC for assistance.
3)	If you answered NO to any of the above questions, this option is not feasible. Consider other management options.

3.6 DISCHARGE WATER TO A STORM DRAINAGE SYSTEM OR A WATER OF THE U.S. UNDER THE NPDES STATEWIDE PERMIT FOR CALTRANS

Definition

Discharges consisting solely of accumulated precipitation may be discharged to a storm drain or water body under the NPDES Statewide Permit for Caltrans in all RWQCB Regions except 1 and 2.

Several RWQCB Regions allow qualified discharges from non-storm water dewatering operations to be regulated under the NPDES Statewide Permit for Caltrans. See General Requirements below.

Implementation

The flow chart in Figure 2 (Section 2.0) provides guidance for determining if dewatering effluent can be discharged using this option and the process to be used.

Figure 3 (following page) is an enlargement of the section of the flow chart in Figure 2 that shows the implementation process for discharge using this management option.

Water Quality

Water must be free of pollutants other than sediment and must consist solely of accumulated precipitation or qualify as a *minor discharge* of non-storm water.

Advantages

- Can be discharged directly from the project site following sediment treatment (if required).
- Minimal cost.

Limitations

- Must meet water quality requirements as summarized above.
- May require treatment for sediment removal.

General Requirements

- Dewatering Operation BMPs must be included in the project SWPPP or WPCP in accordance with BMP NS-2 “Dewatering Operations” of the *Caltrans Construction Site BMPs Manual*.
- As identified in Figure 2, Dewatering Operations Management Flow Chart, assess water quality and estimate discharge parameters to assure that the water meets water quality requirements and limitations on quantity. Refer to Sections 2.1 through 2.3, and the *Water Quality and Discharge Parameters Assessment Form* (Appendix C) for guidance.
- For accumulated precipitation in Regions 3 – 9, the discharge must consist solely of accumulated precipitation; it cannot be combined with non-storm water. In Regions 3 – 9, RWQCB notification is not required prior to this discharge. (In Regions 1 and 2, concurrence of the RWQCB is required prior to



discharging accumulated precipitation under the NPDES Statewide Permit for Caltrans or a separate permit may be required.)

- In RWQCB Regions 3, 5 and 7, *minor* discharges of non-storm water (groundwater, etc.) may be discharged to a storm drain or water body under the NPDES Statewide Permit for Caltrans. A minor discharge of non-storm water is defined as a discharge of less than 0.25 mgd and with a duration of four or fewer months. Notify the RWQCB of the proposed discharge and provide any water quality assessment information that is available. Concurrence from the RWQCB should be obtained prior to the removal of any non-storm water from the construction site.
- In Region 9, a discharge of unpolluted groundwater of less than 0.1 mgd to a surface water other than San Diego Bay may be allowed under the NPDES Statewide Permit for Caltrans. Concurrence from the RWQCB should be obtained prior to the removal of any groundwater from the construction site.
- Discharge only water that is visibly clear or water treated using appropriate BMPs to prevent impacts to receiving waters. Methods and technologies for sediment removal are described in Appendix B.
- Removed sediments must be handled properly. Retained sediment must be either dispersed onsite and stabilized, or disposed of at a disposal site approved by the Resident Engineer.
- Ensure that the discharge does not cause erosion at the discharge point. Implement appropriate BMPs such as BMP SS-10, “Outlet Protection/Velocity Dissipation Devices” in the *Caltrans Construction Site BMPs Manual*.
- Monitor the discharge regularly to assure that the BMPs are working effectively. The *Dewatering Operations Monitoring Form* provided in Appendix C may be used for this purpose.
- Maintain monitoring records with the SWPPP or WPCP.
- For minor discharges of non-storm water, provide monitoring results to the RWQCB, if required.

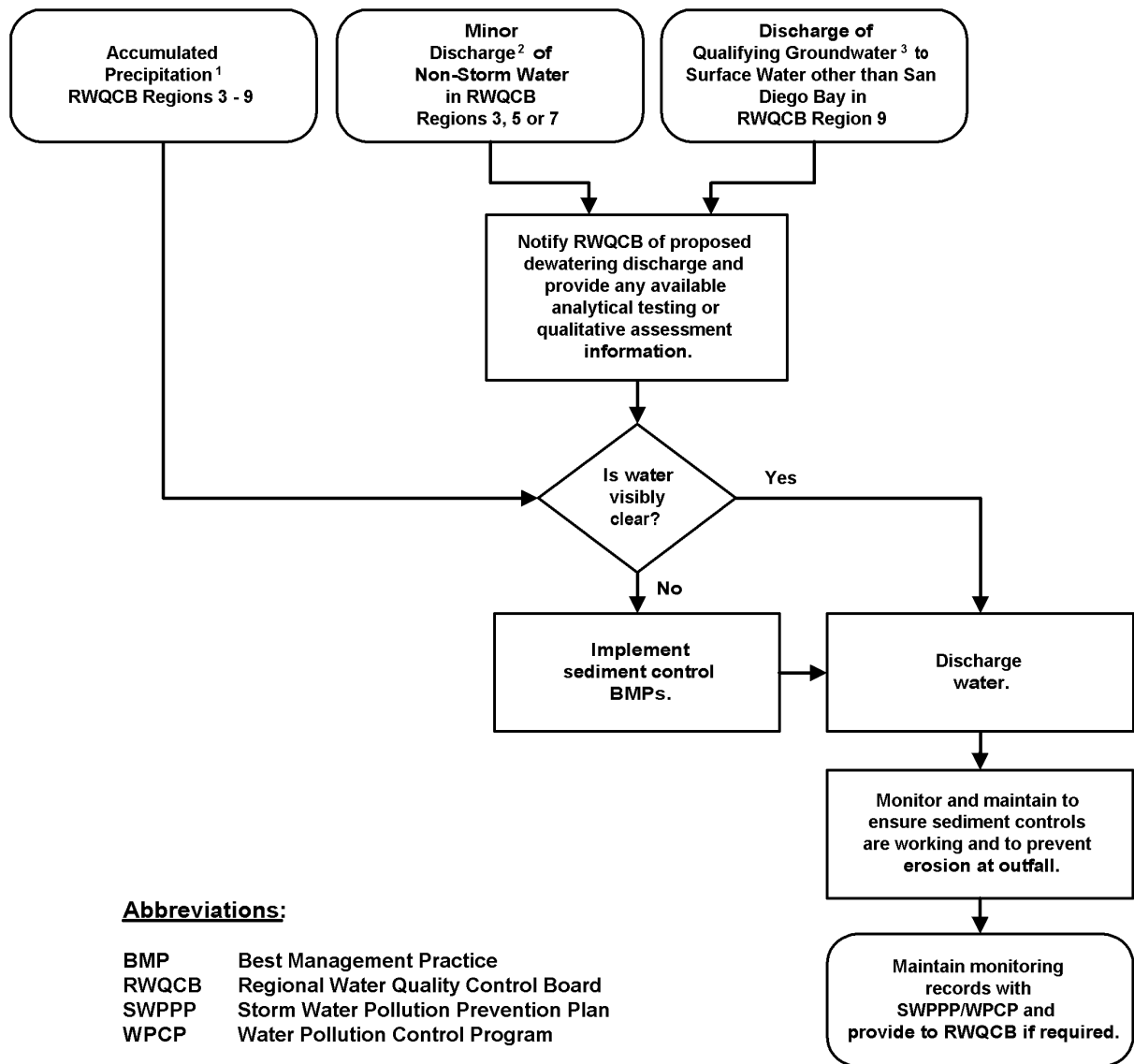


Figure 3 Dewatering Under the NPDES Statewide Permit for Caltrans

3.7 DISCHARGE WATER TO A STORM DRAINAGE SYSTEM OR A WATER OF THE U.S. UNDER A RWQCB NPDES GENERAL PERMIT OR SITE-SPECIFIC NPDES PERMIT

Definition

Discharge of accumulated water to a storm drainage system or directly to a water of the U.S. in accordance with a General NPDES Permit or site-specific NPDES permit issued by the RWQCB.

Implementation

Requires applying for permission to discharge under the applicable regional General NPDES Permit or applying for a site-specific permit from the RWQCB. The flow chart in Figure 4 provides general guidance for the implementation process for this management option. RWQCB permits that may apply within each District are listed in Table 10 below.

Permit options and requirements vary by Region, as summarized in Appendix A. The Resident Engineer should consult with the CSWC and review the regional permit for details of the requirements. Copies of the General NPDES Permits referenced in Table 10 are provided as Appendix D of the Field Guide.

Water Quality

- Appropriate for water free of pollutants other than sediment.
- Water with pollutants other than sediment may be discharged by permission of the RWQCB, and treatment may be required.

Advantages

- Can be discharged directly from the project site.
- Appropriate for small to large quantities of water.
- Minimal costs.

Limitations

- Permit application and approval may take several months.
- Discharged water must meet permit water quality requirements.
- Treatment for sediment or other pollutants may be required.
- Pre-discharge testing, monitoring, and reporting to be conducted in accordance with permit.

General Requirements

- Consult with the CSWC for assistance in applying for and complying with the RWQCB NPDES permit.
- Test, manage, and monitor the discharge in accordance with the RWQCB permit.
- Appendix A provides summary information about General Permits in each Region. Copies of

the General NPDES Permits are provided as Appendix D of the Field Guide.

- Sediment treatment is a likely requirement. Methods and technologies for sediment removal are described in Appendix B.
- In addition to RWQCB requirements, dewatering operations must be conducted in accordance with the Dewatering Operations BMP NS-2 “Dewatering Operations” of the *Caltrans Construction BMPs Manual*.
- Ensure that discharges do not cause erosion at the discharge point. Implement appropriate BMPs such as BMP SS-10 “Outlet Protection/Velocity Dissipation Devices” of the *Caltrans Construction BMPs Manual*.

Table 10 Caltrans Districts and RWQCB General Permits

Caltrans District	RWQCB General Permit
1	Region 1 – General Permit 93-61 Region 5 – General Permit 5-00-175
2	Region 1 – General Permit 93-61 Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
3	Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
4	Region 1 – General Permit 93-61 Region 2 – No General Permit Region 3 – No General Permit Region 5 – General Permit 5-00-175
5	Region 2 – No General Permit Region 3 – No General Permit Region 5 – General Permit 5-00-175
6	Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
7	Region 3 – No General Permit Region 4 – General Permit 97-043, 97-045 Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
8	Region 6 – General Permit 6-98-36, 6-98-75 Region 7 – No General Permit Region 8 – General Permit 98-67 Region 9 – General Permit 2000-90, 2001-96
9	Region 6 – General Permit 6-98-36, 6-98-75
10	Region 2 – No General Permit Region 5 – General Permit 5-00-175 Region 6 – General Permit 6-98-36, 6-98-75
11	Region 7 – No General Permit Region 9 – General Permit 2000-90, 2001-96
12	Region 8 – General Permit 98-67 Region 9 – General Permit 2000-90, 2001-96

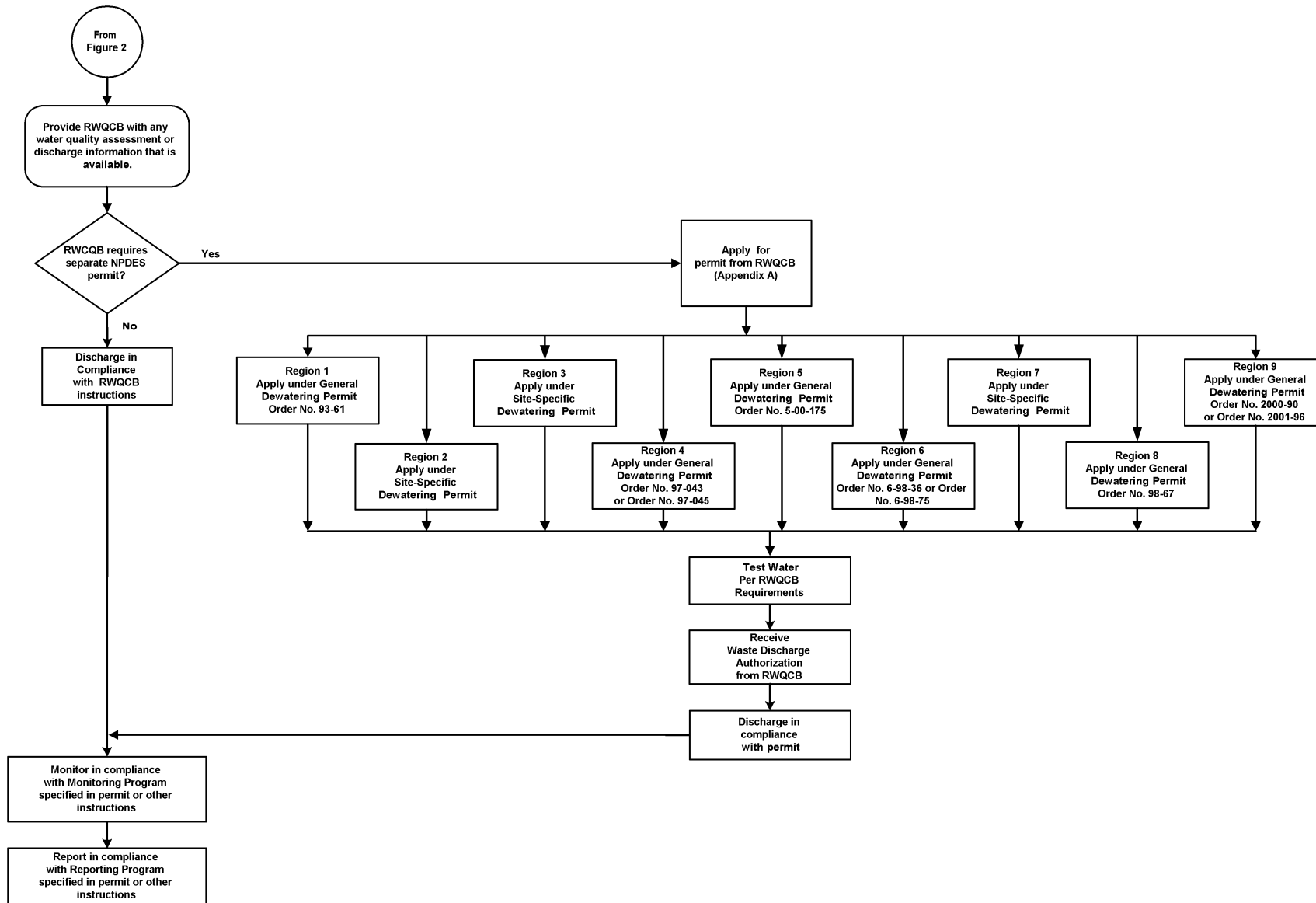


Figure 4 General Process of Dewatering Under a Regional NPDES Permit

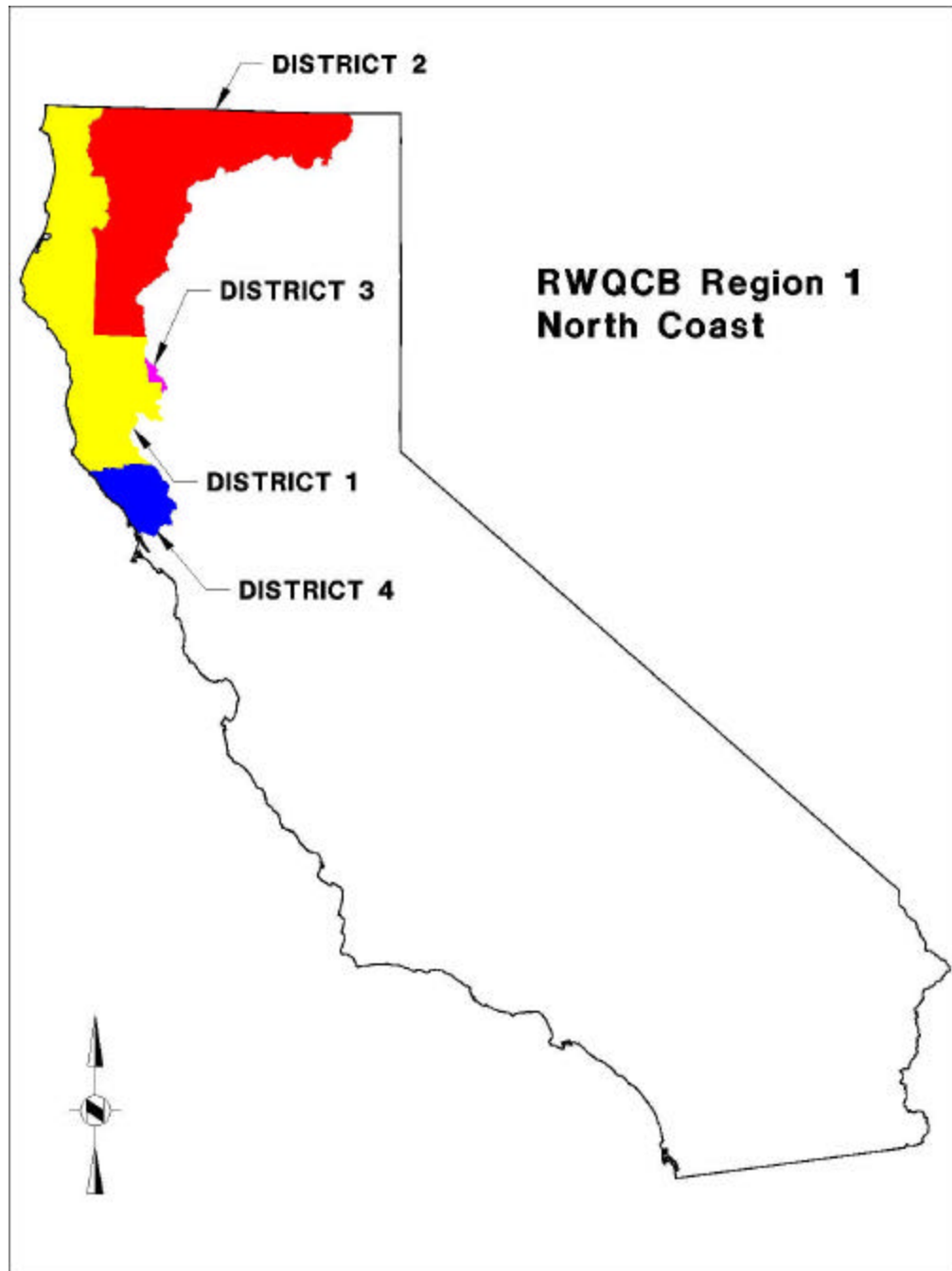
Appendix A

RWQCB Regional Maps with Caltrans District Boundaries

RWQCB Contacts

RWQCB NPDES Dewatering Requirements Summaries

RWQCB REGION	REGION 1 – NORTH COAST
CALTRANS DISTRICTS	1, 2, 3, 4
COUNTIES	District 1: Del Norte, Humboldt, northern Lake, Mendocino; District 2: Northwestern Modoc, western Siskiyou, Trinity; District 3: Northwestern Glenn; and District 4: Northern Sonoma.



RWQCB CONTACTS :

GENERAL: 5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403
(707) 576-2220

PRIMARY: John Short
(707) 576-2065
Shorj@rb1.swrcb.ca.gov

SECONDARY: Paul Keiran
(707) 576-2753
Keirp@rb1.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

All dewatering discharges from storm water (accumulated precipitation) or non-storm water (groundwater, cofferdams, diversions, etc.) must be authorized under a Regional dewatering permit.

General NPDES Dewatering Permit(s):

Region 1 has a general NPDES dewatering permit under order number 93-61. Contact the RWQCB for more information about application procedures and permit requirements.

General NPDES Dewatering Permit(s):

Permit:

Order No.: 93-61

Title: “General NPDES Permit and Waste Discharge Requirements for Discharges of Groundwater to Surface Water Related to Construction and Subsurface Seepage Dewatering Activities in the North Coast Region”

Covers: Existing and future discharges of groundwater to surface waters resulting from construction dewatering and for subsurface seepage dewatering and similar operations.

How to Apply: Submit Report of Waste Discharge and Application for NPDES Permit. For new discharges, submit 90 days prior to discharge. RWQCB will issue a Discharge Authorization Letter upon approval. The report of waste discharge shall be accompanied by a feasibility study of reuse of the groundwater.

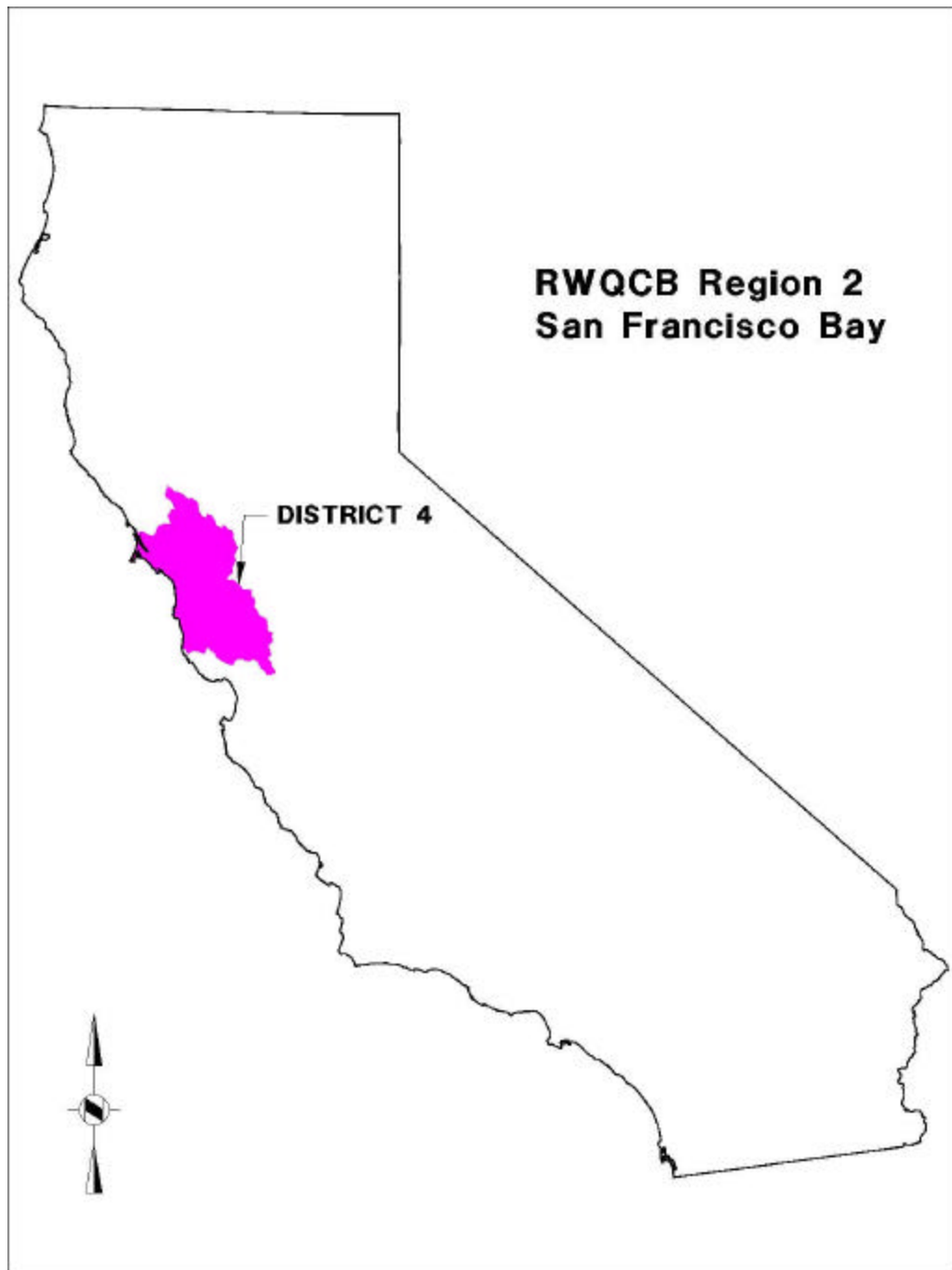
General Requirements: Monitoring and reporting required as defined in the permit and directed by the RWQCB Discharge Authorization Letter.

RWQCB REGION**REGION 2 – SAN FRANCISCO BAY****CALTRANS DISTRICTS**

4

COUNTIES

District 4: Western Alameda, western Contra Costa, Marin, western Napa, San Francisco, San Mateo, northern Santa Clara, western Solano, and southern Sonoma.



RWQCB CONTACTS

General: 1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-2407

Primary: Hossain Kazemi
(510) 622-2369
MHK@rb2.swrcb.ca.gov

Secondary: Dale Bowyer
(510) 622-2323
Dcb@rb2.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

All dewatering discharges from storm water (accumulated precipitation) and non-storm water (groundwater, cofferdams, diversions, etc.) must be authorized by the RWQCB. On a site-specific basis the RWQCB may allow short-term small quantity discharges without a permit but with verbal permission.

General NPDES Dewatering Permit(s):

None. Site-specific NPDES dewatering permits only.

Site-Specific NPDES Dewatering Permit(s):

How to Apply: Applicant must have been denied permission to discharge to the local sanitary sewer.

RWQCB application instructions are provided in “Application for Temporary Discharge of Groundwater.” Requires completed Application for Facility Permit/Waste Discharge Form, description/history/analysis of groundwater, and fee of \$1000.

General

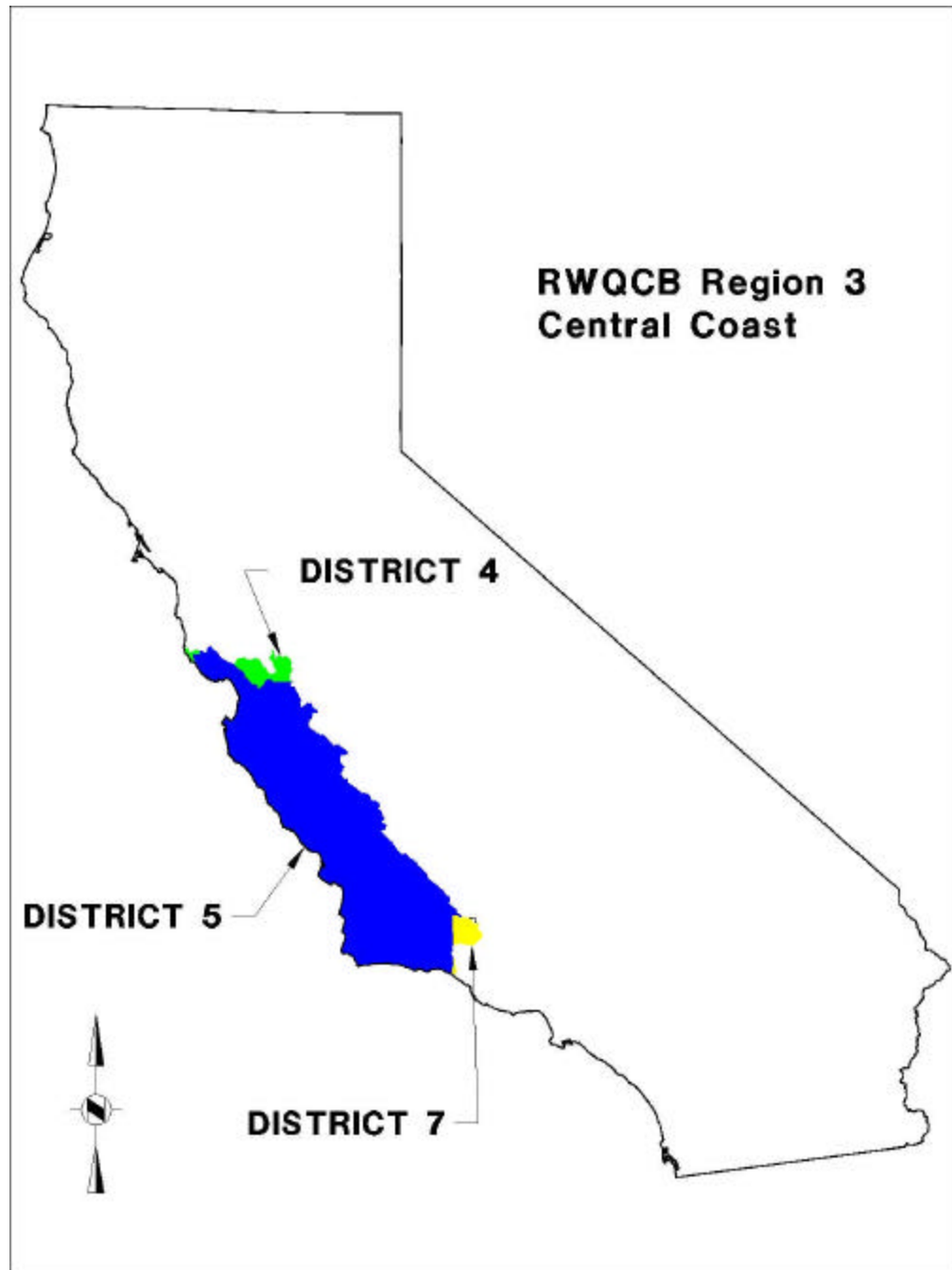
Requirements: Monitoring and reporting required as defined in the RWQCB Discharge Authorization Letter. Receiving water requirements are defined in the Basin Plan.

RWQCB REGION**REGION 3 – CENTRAL COAST****CALTRANS DISTRICTS**

4, 5, 7

COUNTIES

District 4: Southern Santa Clara, Monterey; District 5: Western San Benito, San Luis Obispo, Santa Barbara, Santa Cruz; and District 7: Northwestern Ventura.



RWQCB CONTACTS :

General:	81 Higuera Street, Suite 200 San Luis Obispo, CA 93401 (805) 549-3147
Primary:	Jennifer Bitting (805) 549-3334 Jbitting@rb3.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) or *minor discharges* of non-storm water (groundwater, water from cofferdams, water diversions, etc.) containing sediment as the only pollutant, are allowed to be discharged under the NPDES Statewide Permit for Caltrans, as described in Section 3.6. As described in Section 2.3, the definition of a *minor discharge* in Region 3 is less than 0.25 mgd and 4 months duration.

A *major* discharge of non-storm water, or storm water or non-storm water discharges containing pollutants other than sediment, require a site-specific dewatering permit from the RWQCB.

General NPDES Dewatering Permit(s):

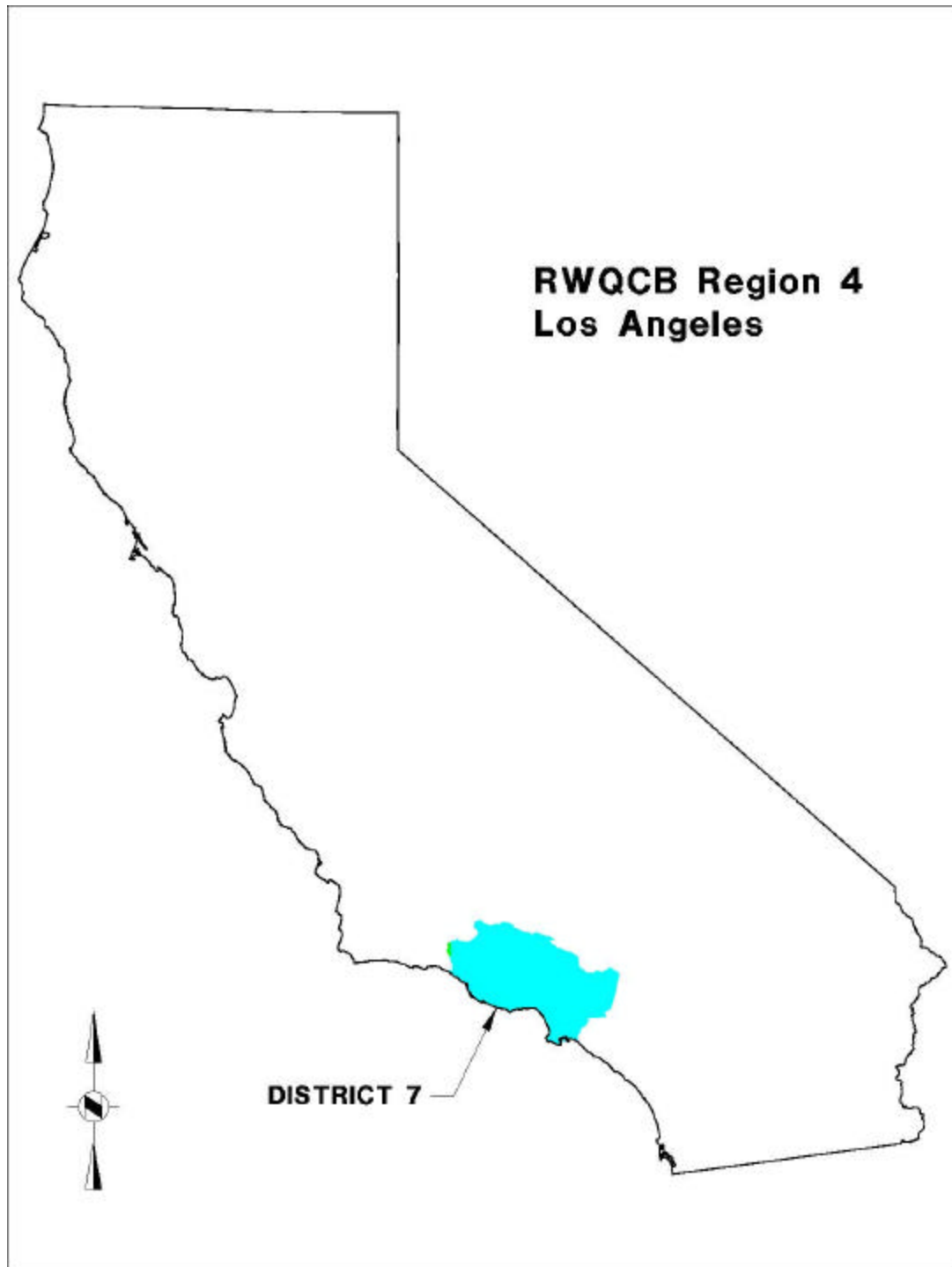
None. Site-specific NPDES dewatering permits only.

Site-Specific NPDES Dewatering Permit(s):

How to Apply: Contact the RWQCB.

RWQCB REGION**REGION 4 – LOS ANGELES****CALTRANS DISTRICTS****7****COUNTIES**

District 7: Los Angeles (except northeastern portion) and Ventura (except northwestern portion).



RWQCB CONTACTS :

General:	320 W. 4 th Street, Suite 200 Los Angeles, CA 90013 Inland: (213) 576-6664 Ventura: (213) 576-6657 Coastal: (213) 576-6655
Primary:	Carlos Urrunaga (213) 576-6655 Currunag@rb4.swrcb.ca.gov
Secondary:	Xavier Swamikannu (213) 576-6654 Xswami@rb4.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) containing sediment as the only pollutant, are allowed to be discharged under the NPDES Statewide Permit for Caltrans, as described in Section 3.6.

Discharges of non-storm water, or storm water containing pollutants other than sediment, require a dewatering permit from the RWQCB. The RWQCB has issued two general NPDES dewatering permits, one for the discharge of water requiring treatment (Order 97-043) and one for the discharge of water that does not require treatment (Order 97-045).

General NPDES Dewatering Permit(s):

Permits:

Order No.:	97-043
Title:	“General NPDES Permit and Waste Discharge Requirements of Discharges of Treated Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties”
Covers:	Construction dewatering including incidental collected storm water, subterranean seepage. For waters that require treatment for pollutants that may degrade the water quality or cause a minor impairment to the designated beneficial uses of the receiving waters. Does not include water associated with “toxic clean-ups.” Contaminants requiring treatment may include oil, solids, salts, sewage, chemicals, and hydrocarbons.
Order No.:	97-045
Title	“General NPDES Permit and Waste Discharge Requirements of Groundwater Discharges from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties”
Covers:	Construction for water that does not require treatment other than for sediment.

How to Apply: Submit Report of Waste Discharge and Application for NPDES Permit at least 30 days prior to discharge. RWQCB will issue a Discharge Authorization Letter upon approval.

General Requirements: Monitoring and reporting required as defined in the “Monitoring and Reporting Program” specifications of the permit and as defined in the RWQCB Discharge Authorization Letter.

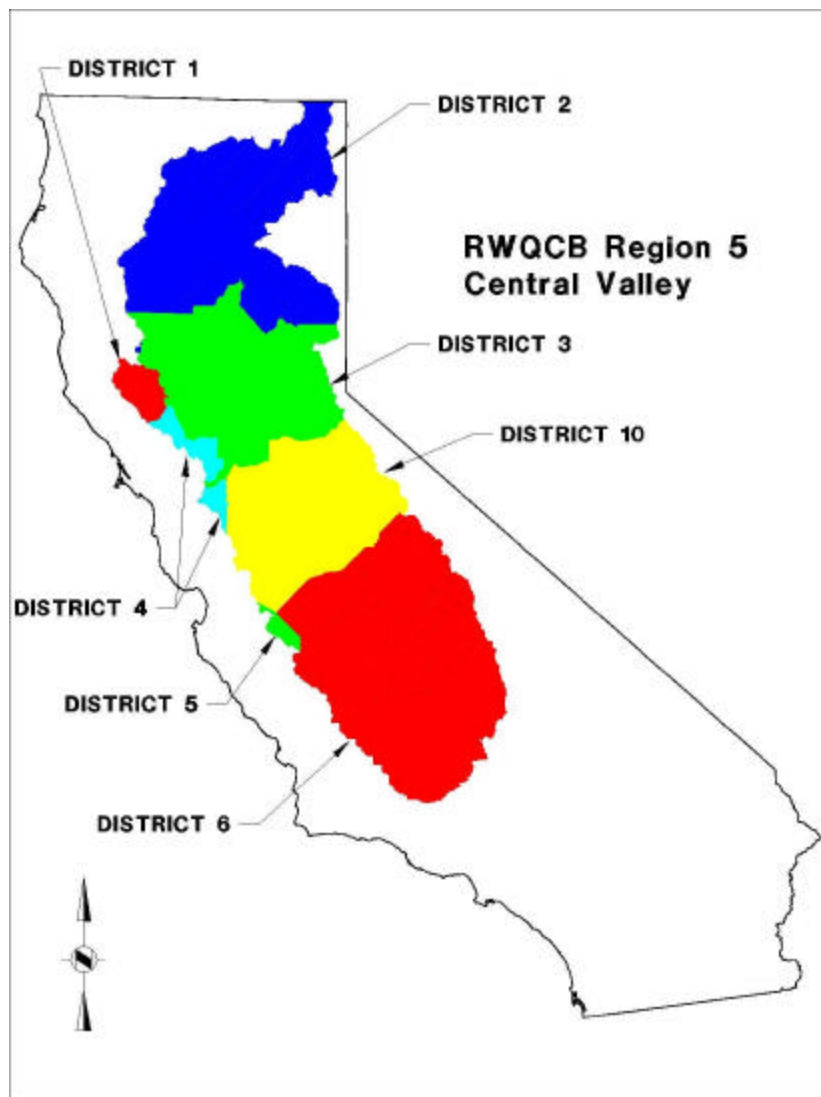
RWQCB REGION REGION 5 – CENTRAL VALLEY**CALTRANS DISTRICTS** 1, 2, 3, 4, 5, 6, 10

COUNTIES

REDDING: District 2: Western Lassen, western Modoc (except northwestern portion), Plumas, Shasta, southeastern Siskiyou Tehama; and District 3: Butte.

SACRAMENTO: District 1: Southern Lake; District 3: Colusa, Glenn (except northwestern portion), western El Dorado, western Nevada, western Placer, Sacramento, western Sierra, Sutter, Yolo, Yuba; District 4: Eastern Alameda, eastern Contra Costa, eastern Napa, eastern Solano; and District 10: Western Alpine, Amador, Calaveras, San Joaquin, Stanislaus, and Tuolumne.

FRESNO: District 6: Fresno, Kings, western Kern, Madera, Tulare; and District 10: Mariposa, and Merced.



RWQCB CONTACTS :**REDDING**

General: 415 Knollcrest Drive
Redding, CA 96002
(530) 224-4849

Primary: Carole Crowe
(530) 224-4849
Crowec@rb5r.swrcb.ca.gov

FRESNO

General: 3614 East Ashlan Avenue
Fresno, CA 93726
(559) 445-5919

Primary: Brian Erlandsen
(559) 445-6071
ErlandsenB@rb5f.swrcb.ca.gov

SACRAMENTO

General: 3443 Routier Road, Suite A
Sacramento, CA 95287
(916) 255-3049

Primary: Dani Berchtold
(916) 255-3383
Berchtd@rb5s.swrcb.ca.gov

Secondary: Jarma Bennett
(559) 445-6046
Bennettj@rb5f.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) or *minor discharges* of non-storm water (groundwater, water from cofferdams, water diversions, etc.) containing sediment as the only pollutant, are allowed to be discharged under the NPDES Statewide Permit for Caltrans, as described in Section 3.6. As described in Section 2.3, a minor discharge in Region 5 is defined as less than 0.25 mgd and 4 months duration.

Major discharges of non-storm water, or storm water or non-storm water discharges containing pollutants other than sediment, require a dewatering permit from the RWQCB. The RWQCB has issued a general NPDES dewatering permit under Order No. 5-00-175.

General NPDES Dewatering Permit(s):

Permit: **Order No.:** 5-00-175. Order 99-08-DWQ
Title: "Waste Discharge Requirements General Order for Dewatering and Other Low Threat Discharges to Surface Waters"
Covers: For miscellaneous public and private businesses discharging clean or relatively pollutant-free wastewater that (1) lasts four months or less in duration, or (2) for which the average dry weather discharge does not exceed 0.25 mgd. Minor discharges include construction dewatering, condensate, water supply system, miscellaneous dewatering, well development, pumping, tank pressure testing, and pipeline testing or flushing.

How to Apply: Submit Notice of Intent (NOI) and annual fee.

General

Requirements: Monitoring and reporting required as defined "Monitoring and Reporting Program" specifications of the permit and as defined in the RWQCB Discharge Authorization Letter. Requirements are based on the duration of the discharge (greater than or less than four months). Plan required for submittal for multi-point discharges.

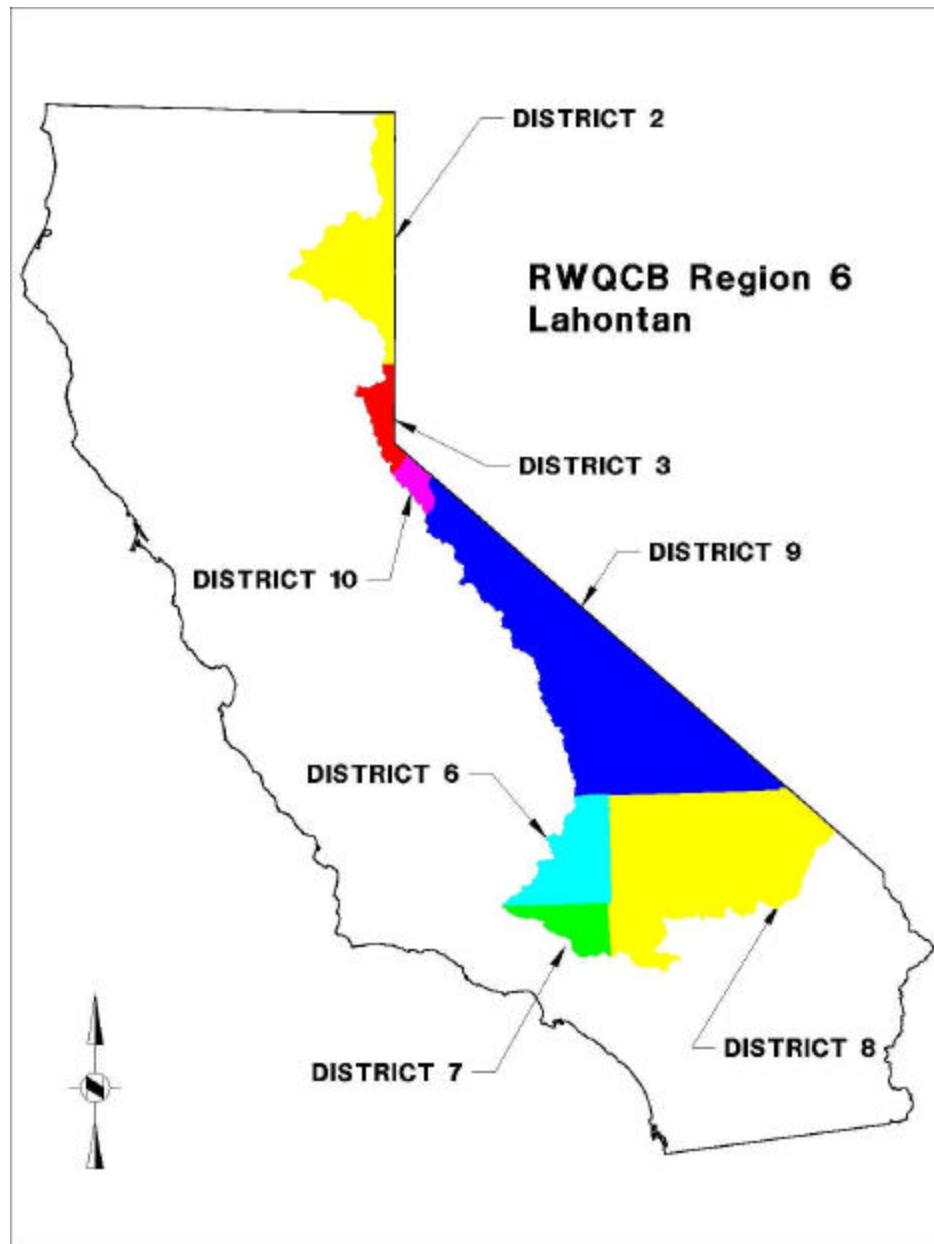
RWQCB REGION**REGION 6 – LAHONTAN****CALTRANS DISTRICTS**

2, 3, 6, 7, 8, 9, 10

COUNTIES

NORTH LAHONTAN BASIN: District 2: Eastern Lassen, Modoc; District 3: Eastern El Dorado, eastern Nevada, eastern Placer, eastern Sierra; District 9: Northern Mono; and District 10: Eastern Alpine.

SOUTH LAHONTAN BASIN: District 6: Eastern Kern; District 7: Northeastern Los Angeles; District 8: Northern San Bernardino; and District 9: Inyo, and southern Mono.



RWQCB CONTACTS :**NORTH LAHONTAN BASIN**

General: 2501 South Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
(530) 542-5433

Primary: Bud Amorfini
(530) 542-5437
Amorb@rb6s.swrcb.ca.gov

Secondary: Mary Fiori Wagner
(530) 542-5425
Fiorm@rb6s.swrcb.ca.gov

SOUTH LAHONTAN BASIN

General: 15428 Civic Drive, Suite 100
Victorville, CA 92329
(760) 241-7377

Primary: Gene Rondash
(760) 241-7412
Erondash@rb6v.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) containing sediment as the only pollutant, are allowed to be discharged under the NPDES Statewide Permit for Caltrans, as described in Section 3.6.

Discharges of non-storm water, or storm water or non-storm water discharges containing pollutants other than sediment, require a dewatering permit from the RWQCB. The RWQCB has issued two general NPDES dewatering permits, one under Order No. 6-98-36 for discharges free of pollutants other than sediment, and one under Order No. 6-98-75, for discharges that must be treated for pollutants other than sediment.

The Lahontan Basin Plan requires applicants to evaluate disposal of wastewater to land as the first alternative. For Tahoe Basin, discharge of solid or liquid waste materials is prohibited to surface waters, land below the high-water rim of Lake Tahoe, or within the 100-year floodplain of any tributary to Lake Tahoe.

General NPDES Dewatering Permit(s):

Permit:	Order No.:	6-98-36
	Title:	“NPDES General Permit for Limited Threat Discharges to Surface Waters”
	Covers:	Discharge of clean or relatively pollutant-free water that poses little or no threat to water quality (minor discharge).
	Order No.:	6-98-75
	Title:	“Waste Discharge Requirements for Updated NPDES Permit for Surface Water Disposal of Treated Ground Waters”
	Covers:	Discharge of treated water from cleanups of pollution, other than through a community wastewater collection and treatment facility, to surface waters of the United States.

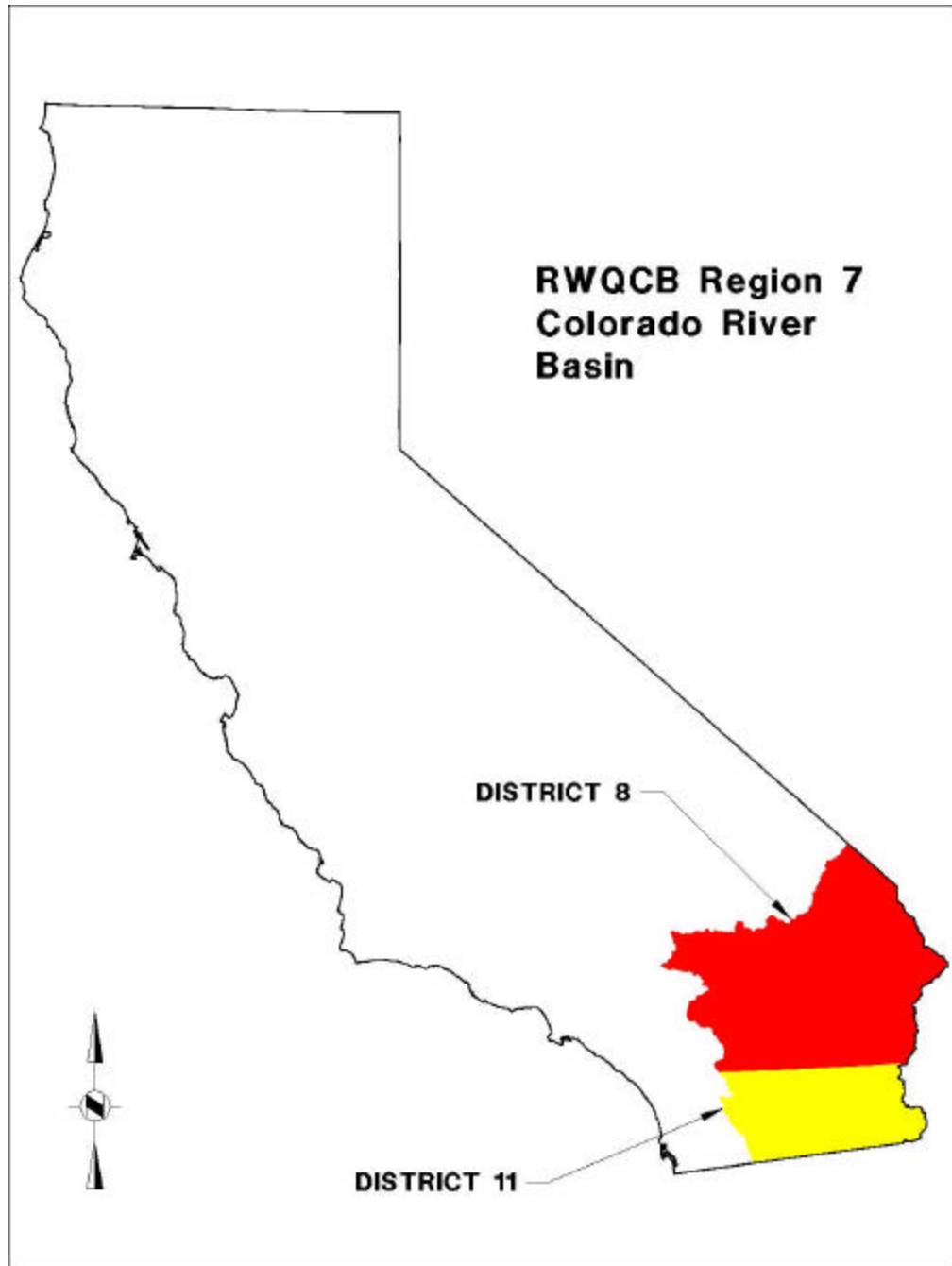
How to Apply: Submit Notice of Intent (NOI) and fee, pre-discharge water quality analysis report, description of BMPs to be used prior to discharge. Issuance of a Notice of Authorization (NOA) by the RWQCB authorizes discharge under the permit.

General

Requirements: Monitoring and reporting required as defined in the “Monitoring and Reporting Program” specifications of the permit and as defined in the NOA.

RWQCB REGION REGION 7 – COLORADO RIVER BASIN**CALTRANS DISTRICTS** 8, 11

COUNTIES District 8: Southern San Bernardino (except southwestern portion),
Riverside (except for far western portion); and District 11: Imperial, and
far eastern portion of San Diego.



RWQCB CONTACTS :

General	73-720 Fred Waring Drive Suite 100 Palm Desert, CA 92260 (760) 776-8935 (760) 241-7364
Primary:	Suhas Chakraborty (760) 776-8961 Chaks@rb7.swrcb.ca.gov
Secondary:	Adbi Haile (760) 776-8939 Haila@rb7.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) or *minor discharges* of non-storm water (groundwater, water from cofferdams, water diversions, etc.) containing sediment as the only pollutant, are allowed to be discharged under the NPDES Statewide Permit for Caltrans, as described in Section 3.6. As described in Section 2.3, a *minor discharge* in Region 7 is defined as less than 0.25 mgd and 4 months duration.

Major discharges of non-storm water, or storm water or non-storm water discharges containing pollutants other than sediment, require a site-specific dewatering permit from the RWQCB.

General NPDES Dewatering Permit(s):

None. Site-specific NPDES permits only.

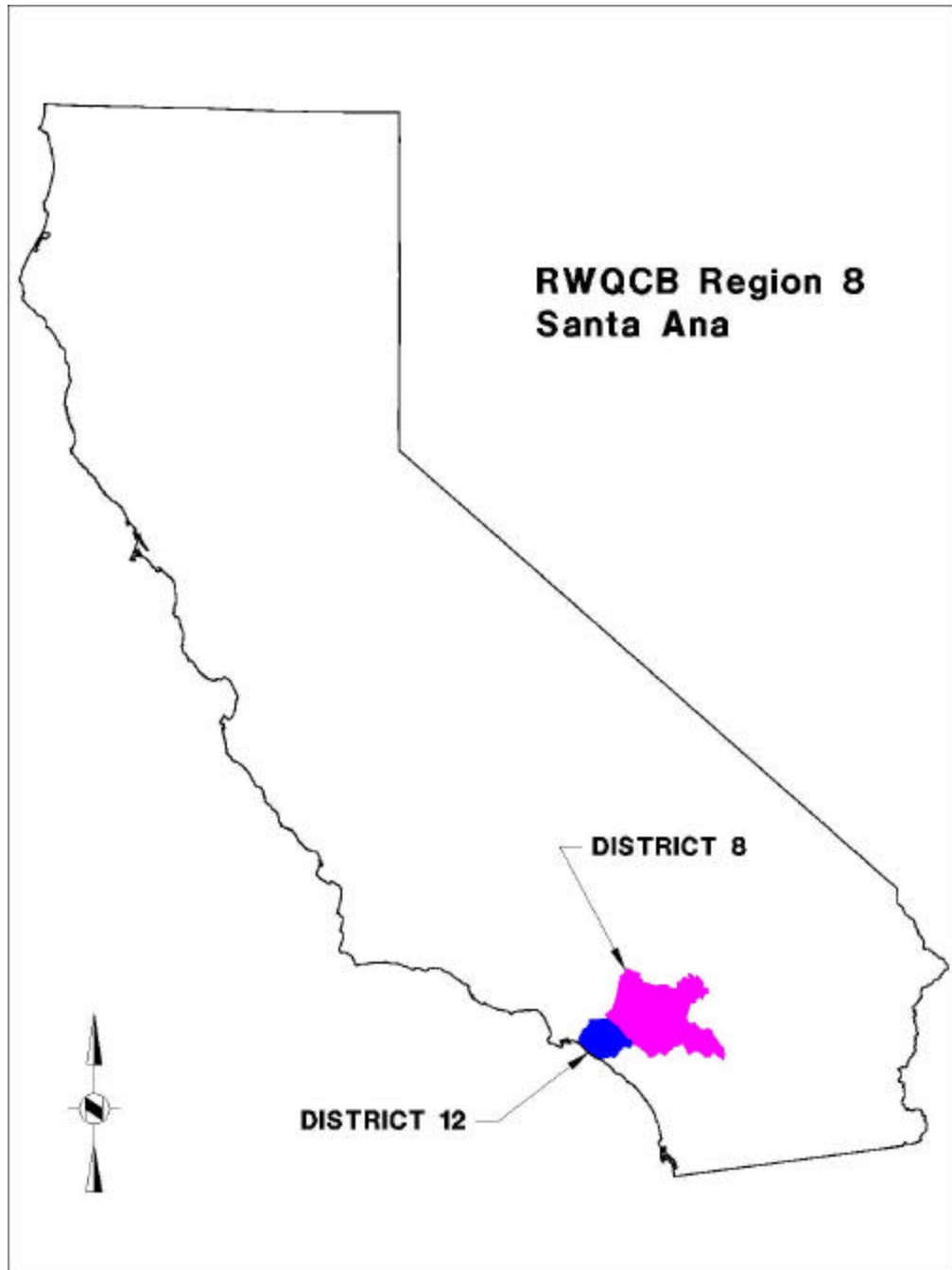
Site-Specific NPDES Dewatering Permit(s):

How to Apply: Contact the RWQCB.

RWQCB REGION **REGION 8 – SANTA ANA**

CALTRANS DISTRICTS 8, 12

COUNTIES District 8: Southwestern San Bernardino, far western Riverside (except southwestern portion); and District 12: Orange (except southern portion).



RWQCB CONTACTS :

General:	3737 Main Street, Suite 500 Riverside, CA 92501 (909) 782-4130
Primary:	Bob Whitaker (909) 782-4993 Bwhitake@rb8.swrcb.ca.gov
Secondary:	Mark Smythe (909) 782-4998 Msmythe@rb8.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) containing sediment as the only pollutant, are allowed to be discharged under the NPDES Statewide Permit for Caltrans, as described in Section 3.6.

Discharges of non-storm water, or storm water discharges containing pollutants other than sediment, require a general dewatering permit from the RWQCB. The RWQCB has issued a general NPDES dewatering permit under Order No. 98-67.

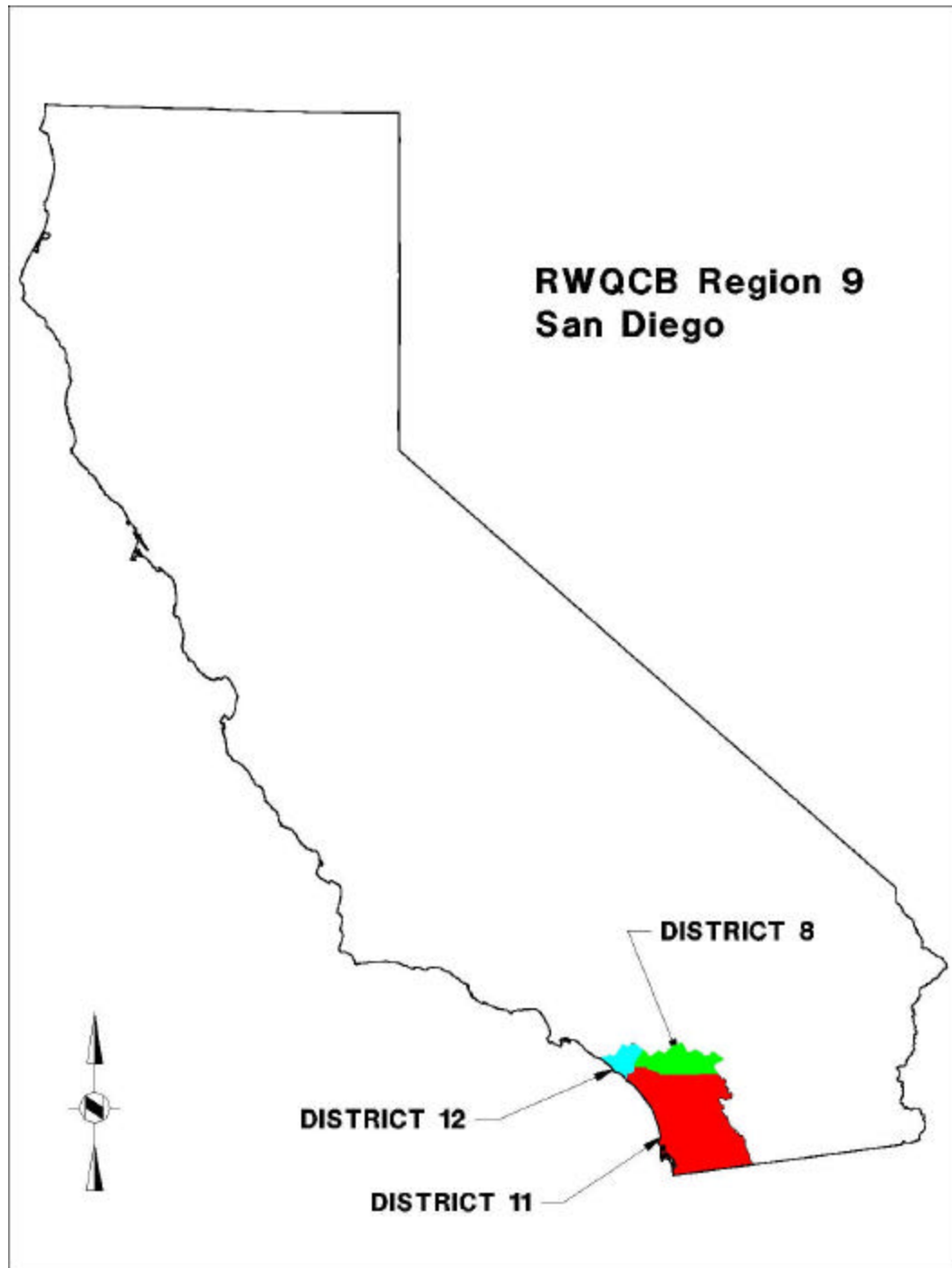
General NPDES Dewatering Permit Requirement(s):

Permit:	Order No.: 98-67
	Title: “General Waste Discharge Requirements for Discharges to Surface Waters Which Pose an Insignificant (De Minimus) Threat to Water Quality”.
	Covers: Regulated de minimus discharges to surface waters (including construction dewatering wastes; dewatering wastes from subterranean seepage; discharges from maintenance/disinfection/system failures of potable water supply pipelines, tanks, reservoirs, etc.); discharges from diverted stream flows; other similar wastes posing minimal threat to water quality
How to Apply:	Submit Notice of Intent (NOI) Form with description of discharge and discharge locations, average/maximum daily flow rate, frequency/duration of discharge, affected receiving waters, treatment system (if any), map showing discharge point and flow to ultimate location of discharge, and any other documents required in Section H of Order No. 98-67. RWQCB will issued a Discharge Authorization Letter on approval. Authorization for new discharge must be obtained 60 days prior to starting discharge
General Requirements:	Monitoring and reporting required as defined in the “Monitoring and Reporting Program” specifications of the permit and as defined in the RWQCB Discharge Authorization Letter. Refer to copy of Order No. 98-67 for specific requirements.

RWQCB REGION **REGION 9 – SAN DIEGO**

CALTRANS DISTRICTS 8, 11, 12

COUNTIES District 8: Southwestern Riverside; District 11: San Diego (except far eastern portion); and District 12: Southern Orange.



RWQCB CONTACTS :

General:	9771 Clairemont Mesa Blvd. Suite A San Diego, CA 92124 (858) 467-3272
Primary:	Kristin Schwall (Statewide Caltrans) (858) 467-2345 Schwk@rb9.swrcb.ca.gov
Secondary:	Bob Morris (858) 467-2962 Morrb@rb9.swrcb.ca.gov

NPDES Permitting Requirements for Dewatering Discharges:

Discharges consisting solely of storm water (accumulated precipitation) are regulated under the NPDES Statewide Permit for Caltrans.

Discharges to surface waters other than San Diego Bay of unpolluted groundwater of less than 0.1 mgd, are regulated under the NPDES Statewide Permit for Caltrans, as described in Section 3.6.

Discharges to surface waters other than San Diego Bay of groundwater greater than 0.1 mgd or of polluted groundwater of less than 0.1 mgd require enrollment under the RWQCB general NPDES Permit No. CAG919002 (Order No. 2001-96).

All discharges of groundwater to San Diego Bay, including those to storm conveyances or tributaries to San Diego Bay, require enrollment under the RWQCB general NPDES Permit No. CAG919001 (Order No. 2000-90).

For discharges associated with all other types of dewatering operations, contact the RWQCB for guidance.

The two general NPDES permits issued by the RWQCB, one for groundwater discharges to San Diego Bay or tributaries to San Diego Bay (Order No. 2000-90) and one for groundwater discharges to surface waters other than San Diego Bay (Order No. 2001-96), are summarized below.

General NPDES Permit(s) Regulating Groundwater Extraction Discharges:

General Permit:

Order No.:	2000-90
Title:	“Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto”
Covers:	Discharges of extracted groundwater from construction dewatering, foundation dewatering, and groundwater remediation operations to San Diego Bay or storm drains/tributaries to San Diego Bay.
Order No.:	2001-96
Title:	“General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges from Construction, Remediation, and Permanent Groundwater Extraction Projects to

	Surface Waters within the San Diego Region Except for San Diego Bay”
Covers:	Groundwater extraction waste discharges to all surface waters within San Diego RWQCB jurisdiction, except those into San Diego Bay or tributaries thereto that (1) are greater than 0.1 mgd or (2) are of less than 0.1 mgd and contain pollutants in excess of the limits defined in Section B.1, B.2, B.3, or B.4 of the order.
How to Apply:	Complete the “Application for General NPDES Permit Enrollment for Discharges of Groundwater to Surface Waters” and submit at least 60 days prior to discharge with Certification of Compliance Statement, map(s) of initial and final discharge points and a filing fee of \$1000.00.
General Requirements:	Monitoring and reporting required as defined in the “Monitoring and Reporting Program” specifications of the permit and as defined in the RWQCB Discharge Enrollment Letter.

Appendix B

Sediment Treatment Options

B. SEDIMENT TREATMENT OPTIONS

This appendix provides Caltrans Resident Engineers with guidance to ensure that the contractor implements proper sediment treatment practices for dewatering operations.

- The first section summarizes sediment treatment requirements.
- The second section considers questions that should be answered prior to selecting appropriate treatment options and compares the key features of various methods and technologies.
- The final section presents additional information about various technologies, including advantages/disadvantages, construction/implementation considerations, estimated costs, and maintenance requirements.

B.1 SEDIMENT TREATMENT REQUIREMENTS

When is Sediment Treatment Required for Dewatering Operations?

Sediment is the most common pollutant associated with dewatering operations on construction sites. When water is not visibly clear of sediment or when the dewatering operation may re-suspend sediments, one or more sediment treatment options may need to be implemented.

How Much Sediment Removal is Required?

Sediment treatment requirements depend on how the contractor manages the effluent and the requirements of any NPDES permits and Regional Basin Plan requirements that regulate the dewatering discharge.

- If effluent is being retained on site (for infiltration, evaporation, dust control, irrigation, etc.), sediment treatment is not required, but may be necessary for protection/proper functioning of water trucks, etc.
- If effluent is being discharged to a storm drain or water of the U.S., the water must be treated for sediment in compliance with the authorizing NPDES permit.

What are NPDES Permit Requirements for Sediment Removal?

Sediment treatment requirements are specific to the NPDES permit that authorizes the dewatering operation.

- For dewatering operations under the NPDES Statewide Permit for Caltrans, sediment treatment requirements are specified in the *Construction Site Best Management Practices (BMPs) Manual*, NS-2, Dewatering Operations. If water is not visibly clear, it must be treated using BMPs so that the discharge does not impact receiving water quality.
- For dewatering authorized under a separate NPDES permit issued by RWQCB, refer to the requirements specified in the permit. Maximum levels for turbidity, total suspended solids (TSS) or other related parameters for both the dewatering discharge and for the receiving water may be defined in the permit. For example, the permit may specify that the dewatering discharge cannot exceed a turbidity level of 50 Nephelometric Turbidity Units (NTUs) and may not cause the background turbidity of the receiving water to be elevated by more than 10 percent.

B.2 SELECTING APPROPRIATE SEDIMENT TREATMENT OPTIONS

This section contains a series of questions that should be considered by the contractor prior to selecting the sediment treatment options for dewatering operations on the construction site.

What Type of Sediment is Present in the Water?

The size of particles present in the sediment is a key consideration for selecting the appropriate sediment treatment option(s).

- If the sediment consists primarily of gravel or sand, which are relatively large particles, a single treatment using a more basic technology, such as a weir tank, may be adequate.
- If the sediment consists of silt and/or clay, which are relatively small particles, the effluent will most likely need a more advanced technology, such as a sand media particulate filter or cartridge filter.
- If the sediment consists of a large spectrum of particle sizes, the water may need primary treatment to remove larger particles, followed by secondary treatment to remove finer particles.

Figure B-1 shows the estimated removal efficiencies for various sediment treatment technologies.

What Site Conditions May Limit Sediment Treatment Selection?

The slope and accessibility of the treatment area may impose limitations on the selection of an appropriate system. The site should be evaluated to determine the most effective system layout, access, dewatering storage, pumping requirements (flow, pressure, duration), ancillary piping, backwash tanks, a low impact discharge system, and any other site-specific requirements.

The applicability and use of dewatering devices on a construction project are specific to the individual job and treatment needs. The vendors who rent and sell these products can provide assistance to engineer a dewatering management program to meet the specific job conditions. It is possible that multiple devices and treatment techniques may be necessary to meet the treatment criteria.

In order to treat the water to be discharged, the contractor will necessarily have to pump from a collection or storage area to the treatment unit(s); therefore, storage tanks may be required as part of the system. It is important that the pumps be matched to fit the project needs and the dewatering equipment operation parameters. Pumps are selected depending on total dynamic head (how far and high the water is to be pumped), flow, availability of electrical power, amount of storage volume, and time constraints. Some pumps have a diesel or gasoline engine directly coupled to the pump on the skid/trailer, as well as a fuel tank. However, pumps with electric motors will require power (3 phase) from an electrical power supply or a portable generator.

Pressurized bag, cartridge, and sand media filters require a power supply for operation. Specifics regarding the power requirements should be coordinated with the vendor.

How Does Flow Rate Affect Sediment Treatment Selection?

Manufacturers' specifications identify the maximum flow rate that can be treated for sediment removal. For higher flows, it may be necessary to operate multiple treatment systems in parallel to treat the volume of effluent. Table B-1 shows the range of flow rates available for individual sediment treatment options.

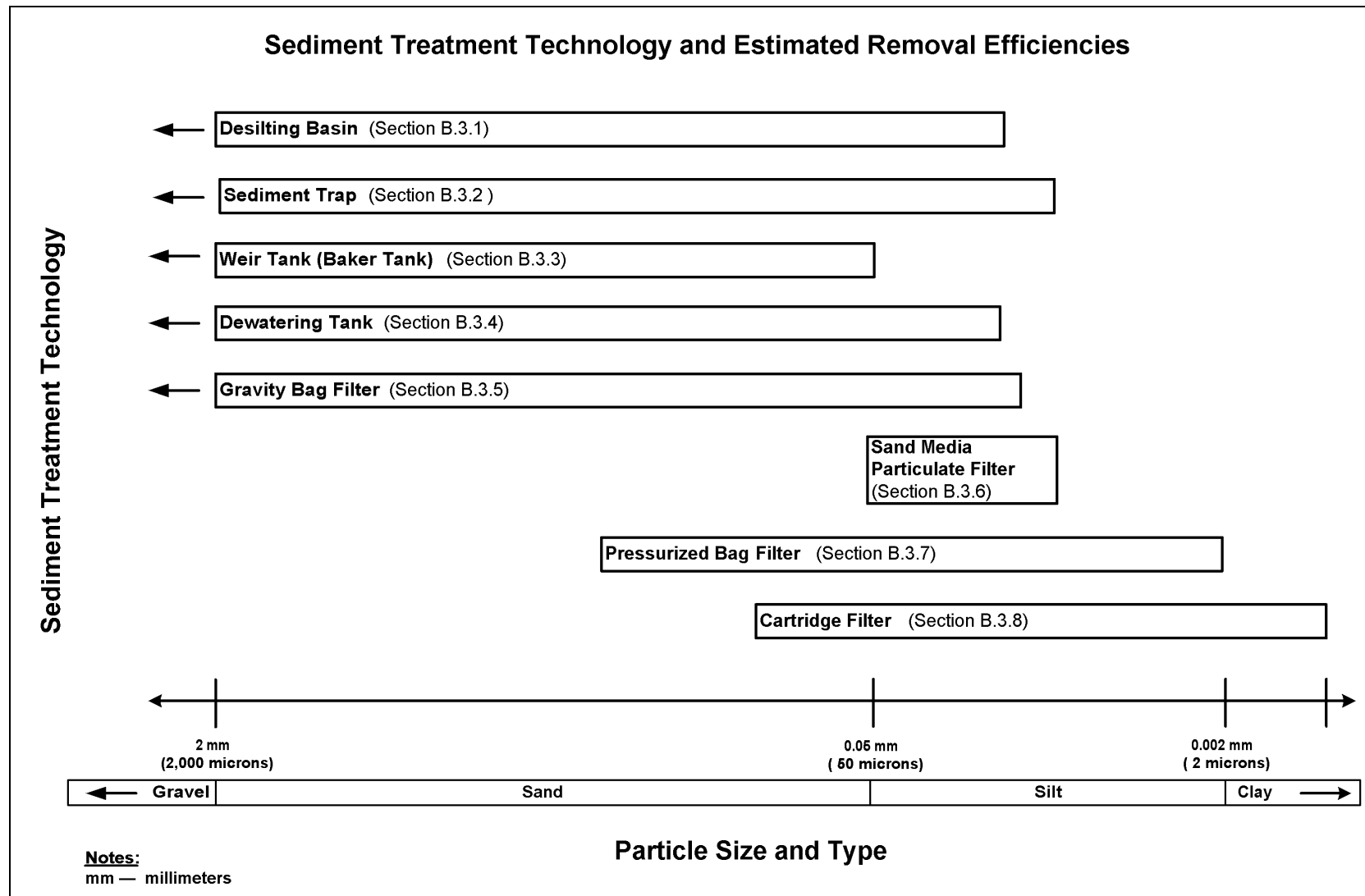


Figure B-1 Sediment Treatment Technology and Estimated Removal Efficiencies*

*Caltrans has not validated these performance expectations. This information is based on general manufacturer's information.

What are Maintenance Requirements?

Sediment removal effectiveness depends on proper maintenance of the treatment structure or system. For example, sediment has to be removed and disposed of from desilting basins. Filtering systems may need frequent cleaning and/or replacement of filters, cartridges, and/or media. Maintenance requirements should be considered for projecting the total cost of implementing specific technologies. Table B-1 compares maintenance requirements for various technologies.

How Much do Sediment Treatment Systems Cost?

Table B-1 compares estimated costs associated with various sediment treatment methods and technologies. The estimates are based on vendor quotes for the year 2001. Transportation costs depend on site location relative to product distributors and are estimated to be approximately \$75 per hour. When projecting costs for sediment treatment, consider the need for implementing multiple systems for handling high flow rates or the cost of secondary treatment to remove fine particles.

What Sediment Treatment Options are Available?

Table B-1 summarizes the features associated with some available sediment treatment methods and technologies. Each method/technology is described in more detail in Section B.3. The methods described in this appendix do not include all those available, but are representative of typical methods.

Table B-1 Comparison of Sediment Treatment Technologies*

Sediment Treatment Technology	Pollutants Removed	Flow Range (gpm)	Footprint Area (ft²)	Product Availability	Equipment Required	Construction/Rental Cost	Maintenance Cost	Other
Desilting Basin	Trash Sediment	Varies by design	Varies by design	Time to construct	Excavation	\$108/m ² (\$10/ft ²)	--	Requires design
Sediment Trap	Trash Sediment	Varies by design	Varies by design	Time to construct	Excavation	\$108/m ² (\$10/ft ²)	--	Requires design
Weir Tank (Baker Tank)	Trash Sediment Some oil	60 – 100	1,800	2 – 3 days; 1 week modified	Transport by truck	\$35 - \$45/day	\$1,000/ disposal	May require tank modifications
Dewatering Tank	Sediment	Varies	1,200 – 1,500	1 – 3 days	Transport by truck	\$45-\$60/day	\$125 - \$425 fabric replacement	
Gravity Bag Filter	Sediment	300, 800	100 - 400	1 day	Backhoe or other for removal	\$100 - \$200/bag purchase; \$500 - \$2,000/ barrier	Bag replacement	
Sand Media Filter	Sediment Metals	80 – 1,000 (varies by model)	17 - 450	1 – 2 days	Forklift	\$1,100 - \$4,000/mo.; \$500 - \$1,500 setup	\$50 - \$100/mo.	
Pressurized Bag Filter	Sediment Metals Hydro-carbons	50 – 100 (varies by model)	200 - 320	1 – 2 days	Forklift, or truck for trailer	\$850 - \$3,400/mo.; \$150 - \$500 setup	\$300 - \$1,250/mo.	
Cartridge Filter	Sediment Metals Hydro-carbons	50 - 1,000	200	1 – 2 days	Forklift, or truck for trailer	\$800 - \$3,000/mo.; \$1,500 setup	\$1,000 - \$5,000/mo.	Requires pre-treatment

***Caltrans has not validated these performance expectations. This information is based on general manufacturer's information.**

Legend: m² = square meters ft² = square feet gpm = gallons per minute

B.3 SEDIMENT TREATMENT METHODS AND TECHNOLOGIES

B.3.1 Desilting Basin

Description: A desilting basin is a temporary basin with a controlled release structure formed by excavation and/or construction of an embankment to detain sediment-laden runoff and allow sediment to settle out before discharging.

Specifications: Desilting basin design requirements are outlined in the *Construction Site Best Management Practices (BMPs) Manual* (SC-2) and should be used to design and construct the basin. The required desilting basin size is based on the size of the contributing drainage area and intended for areas less than 30 hectares. For dewatering discharges, flow rate is used to determine the proper basin size. If a desilting basin is to be used for treating dewatering discharges, it must be designated only for that specific use and cannot be used for storm water runoff treatment.

The following table provides general guidance in sizing a basin for a range of discharge flow rates. The calculations used to determine the required surface area are based on a given target particle size to be removed (with an associated settling velocity). Certain design criteria were assumed: 0.015 mm target particle size, a continuous flow rate through the basin (flow in equals flow out), and full basin storage (including a 65 m³ sediment storage zone).

Flow Rate		Required Surface Area	Length/Width = 2:1	
Q (gpm)	Q (m ³ /s)	As (m ²)	L (m)	W (m)
25	0.0016	12.25	4.95	2.48
50	0.0032	24.51	7.00	3.50
100	0.0063	49.01	9.90	4.95
150	0.0095	73.52	12.13	6.06
200	0.0126	98.03	14.00	7.00
250	0.0158	122.53	15.65	7.83
300	0.0189	147.04	17.15	8.57
350	0.0221	171.54	18.52	9.26
400	0.0252	196.05	19.80	9.90
450	0.0284	220.56	21.00	10.50
500	0.0315	245.06	22.14	11.07

Legend: gpm = gallons per minute s = second m = meters

Pollutant Removal:	Effective for removal of trash, large to some fine-sized particles (gravel to silt), and some metals that settle out with the sediment.
Advantages:	Desilting basins achieve sediment removal to a level of 0.01 - 0.02 mm (20 microns) Holds large volumes of sediment
Set Up/ Installation:	Length to width ratio = 2:1 Depth of basin between 1 m and 1.5 m
Limitations:	Desilting basins require a large surface area in order to meet flow and detention times to achieve the desired sediment removal. Construction of a basin in-line with a live watercourse is not permitted. Ineffective in removing colloidal particles. Should not be used to treat groundwater during the rainy season.
Maintenance:	Maintenance is required for safety fencing, vegetation, embankment, inlet and outfall structures, as well as other features. Remove sediment when storage volume is reduced by 1/3.
Cost:	Construction costs approximately \$108/m ² (\$10/ft ²)

B.3.2 Sediment Trap

Description: A sediment trap is a temporary basin with a controlled release structure formed by excavation and/or construction of an earthen embankment across a waterway or low drainage area. The trap is installed where sediment-laden storm water would discharge to a storm drain or watercourse and is generally located at the low point of the drainage area.

Specifications : Design features include a settling zone and sediment storage zone as defined in the *Construction Site Best Management Practices (BMPs) Manual* (SC-3), which should be used to design and construct the basin. The sediment trap size in the BMP is based on the size of the contributing drainage area and intended for areas less than two hectares. For dewatering discharges, flow rate is used to determine the proper size. If a sediment trap is to be used for treating dewatering discharges, it must be designated for that specific use only and cannot be used for storm water runoff treatment.

The following table provides general guidance in sizing a sediment trap for a range of discharge flow rates. The calculations used to determine the required surface area are based on a given target particle size to be removed (with an associated settling velocity). Certain design criteria were assumed: 0.01 mm target particle size, a continuous flow rate through the basin (flow in equals flow out), and full basin storage (including both zones).

Flow Rate		Required Surface Area	Length/Width = 2:1	
Q (gpm)	Q (m ³ /s)	As (m ²)	L (m)	W (m)
25	0.0016	27.57	9.09	3.03
50	0.0032	55.14	12.86	4.29
100	0.0063	110.28	18.19	6.06
150	0.0095	165.42	22.28	7.43
200	0.0126	220.56	25.72	8.57
250	0.0158	275.70	28.76	9.59
300	0.0189	330.83	31.50	10.50
350	0.0221	385.97	34.03	11.34

Legend: gpm = gallons per minute s = second m = meters

Pollutant Removal:	Effective for the removal of large and medium sized particles (sand and gravel), and some metals that settle out with the sediment.
Advantages:	Can be designed to fit in confined areas (such as a low point on the site)
Set Up/ Installation:	Length to width ratio = 3:1 Depth of basin between 1m and 1.5 m
Limitations:	Sediment traps require a large surface area to permit settling of sediment. They are only effective for the removal of large and medium sized particles and are intended to supplement other BMPs, including upstream erosion control. Multiple traps or additional volume may be required to accommodate site conditions. Construction of a basin in-line with a live watercourse is not permitted.
Maintenance:	Maintenance is required for safety fencing, vegetation, embankment, inlet and outfall structures, as well as other features. Remove sediment when storage volume is reduced by 1/3.
Cost:	Construction costs approximately \$108/m ² (\$10/ft ²)

B.3.3 Weir Tank

Description: A weir tank separates water and waste by using weirs rather than a filter cloth or media. To achieve high levels of flow, multiple tanks can be used in parallel. If additional treatment is desired, the tanks can be placed in series or as pre-treatment for other methods. The configuration of the weirs (over and under weirs) maximizes the residence time in the tank and determines the waste to be removed from the water such as oil, grease, and sediments.

Modifications to weir tanks can be made by some vendors to enhance the removal of suspended sediment by installing “tube settlers” in the final chamber of the tank. The tube settlers enable the water to be channeled through a matrix of tubes that rise from the bottom to the top of the tank. The tubes (or rectangular channels) are pre-formed from plastic or other resin material in 2 to 3 foot modules with a 60° angle that allows the sediment to collect at the surface of the tube and gravitate to the bottom.

Specifications:

Parameter	Specification	
	(Metric)	(English)
Capacity	68 – 80 m ³	18,000 – 21,000 gallons
Flow Rate	0.22 – 0.38 m ³ /minute	60 – 100 gpm
Optimal Flow Rate	0.25 m ³ /minute	65 gpm
Footprint Dimensions*	10.7 m L x 3.8 m W x 2.4 – 4.6 m H + 3 m perimeter	35 ft L x 12.5 ft W x 8 – 15 ft H + 10 ft perimeter
Footprint Area	167.3 m ²	1,800 ft ²

*Varies by manufacturer

Pollutant Removal:

Trash, some settleable solids, some visible oil and grease, and some metals (removed with sediment).

Typical particle size removed: Can be designed to remove down to 0.05 mm (50 micron) for fine sand.

Removal is highly dependent on flow rate (i.e., residence time) through the tank. At a reduced flow rate, a weir tank can achieve improved results similar to a desilting basin or sediment trap. The range of flow rates given are based on vendor recommendations and calculations to achieve equivalent removal characteristic of a basin or trap.

Product Availability:

2 - 3 days notice, 1 week for special tank modifications
Delivery time: 1 day

Advantages:

Simplicity; no filter cloth or media required
Portable units
Inexpensive

Set Up/ Installation:

Weirs are installed per customer's specifications
Level, compacted ground preferable

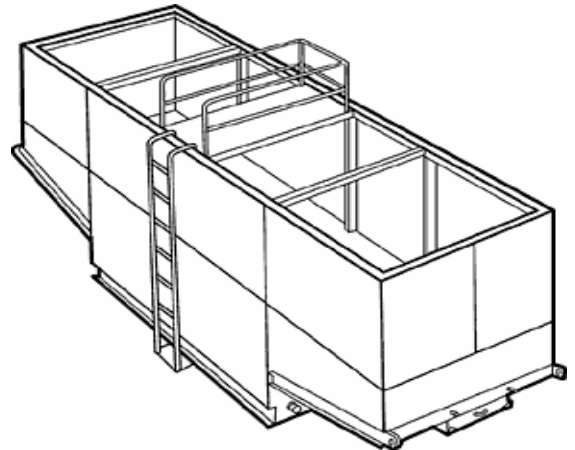
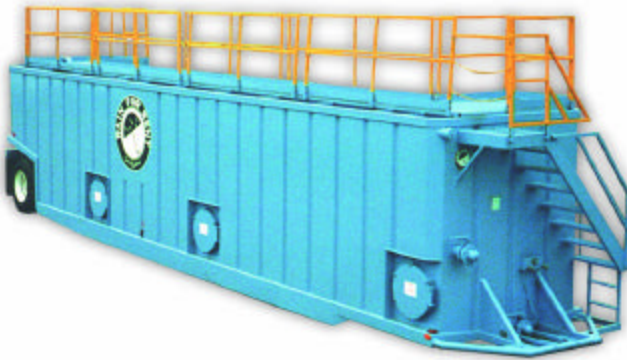
Transported by truck and unloaded on site
Time: 30 minutes

Limitations: Sediment removal depends on particle size and settling velocity and flow/velocity through tank. Requires a level surface and sufficient space.
Best used in conjunction with additional methods for additional sediment/pollutant removal.

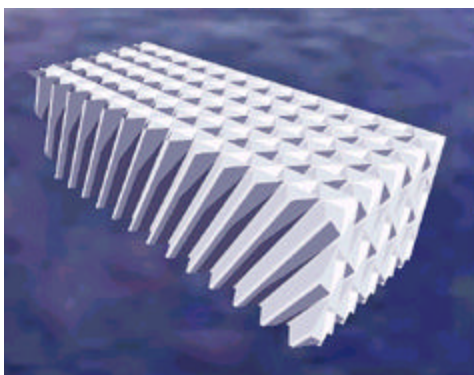
Maintenance: Periodic cleaning based on visual inspection or when flow is reduced.
Open valve, drain, and remove sediment, clean with high-pressure hose as necessary.
Oil and grease disposal must be by licensed waste disposal company.

Cost: \$35 - 45 per day per 80 m³ (21,000 gallon) tank rental
\$900 - \$3,000 one time fee for tank modifications (per tank)
Maintenance costs
Waste Removal: Disposal fees for sediment and liquid of Approximately \$1,000 per disposal; can be higher, depending on pollutants
Transportation costs

Schematic Diagrams



Weir Tanks



Tube Settlers

B.3.4 Dewatering Tank

Description: Flow enters the tank through the top, passes through a fabric filter, and is discharged through the bottom of the tank. The filter separates the solids from the liquids.

Specifications:

Parameter	Specification	
	(Metric)	(English)
Capacity	15 m ³ , 19 m ³ , and 23 m ³	20 yd ³ , 25 yd ³ , and 30 yd ³
Flow Rate	Varies depending on the amount of water pumped into the tank, the fabric type used, fabric condition, and amount of sediment built up.	
Footprint Dimensions	6.7 m L x 2.4 m W x 1.8 m H (avg.) + 3 m perimeter	22 ft L x 8 ft W x 6 ft H (avg.) + 10 ft perimeter
Footprint Area	111.5 – 140 m ²	1,200 – 1,500 ft ²

Pollutant Removal: Depends on filter fabric, > 0.025 mm (25 microns)
Trash, sediments and some metals and oil removed with the sediment

Product Availability: 1 - 3 days notice

Advantages: Portable, simple in design and function
Inexpensive
Various mesh filter cloths available

Set Up/Installation: Level ground preferable
Roll off truck and install fabric
Time: 30 minutes

Limitations: Requires equipment for on-site emptying (or hauling container offsite)
Amount and type of contaminant removal limited to filter material

Maintenance: Based on visual inspection or when flow is reduced
Every 151 m³ to 227 m³ (40,000 to 60,000 gallons): Allow to drain, tip tank over, remove sediment and replace fabric

Cost: \$45 - \$60 per day per tank rental
Operation & Maintenance: Cost of filter cloth liner: \$125 for 0.15 mm (150 micron) or \$425 for 0.025 mm (25 micron)
Transportation Costs

Schematic Diagram



B.3.5 Gravity Bag Filter

Description: A gravity bag filter, also referred to as a dewatering bag, is a square or rectangular bag made of non-woven geotextile fabric that collects sand, silt, and fines. Water to be treated is pumped into one side of the bag and seeps through the bottom and sides of the bag. A secondary barrier, such as a rock filter bed or straw bale barrier, is placed beneath and beyond the edges of the bag to capture sediments that escape the bag.

Specifications:

Parameter		Specification	
		(Metric)	(English)
Capacity (approx.)	Bag Size: 1.2 m x 1.8 m (4 ft x 6 ft)	1.1 – 1.5 m ³ /minute	300 – 400 gpm
	Bag Size: 3.0 m x 4.6 m (10 ft x 15 ft)	3.0 – 4.2 m ³ /minute	800 – 1,100 gpm
	Effluent Collection Trailer*	up to 1.5 m ³ /minute	400 gpm
Footprint Dimensions (per bag)		Bag size + 1.4 m perimeter	Bag size + 5 ft perimeter
Footprint Area (per bag)		9.3 – 37 m ²	100 – 400 ft ²

* Has outlet for controlled draining

Pollutant Removal: Sediments and some metals removed with sediment.
The bag can last in time from 3 days to 3 weeks, depending on quality of water and flow conditions.

Product Availability: Readily available

Advantages: Once soil filter is established, fairly efficient removal of sediments.
Inexpensive.
Easy to install and transport to site.
Disposable, no cleaning required.
Fabrics vary to meet engineering specifications for flow rates, strength, and permeability.
Can place in a vendor-provided trailer/container to reclaim filtered water for further treatment.

Set Up/ Installation: Level ground surface preferable
Secondary barrier of rock filter bed or straw bales
Initial installation: 1 day
Bag disposal and replacement: 2 hours

Limitations: Difficult to guarantee sediment removal efficiencies; variability of treatment depends on total suspended solids and particle size.
Bag has to build up solids to create soil filter. Time to do so varies depending on amount of sediments present in the water. Initial solids removal is minimal.

Continuous monitoring required to determine the need to replace bag, adjust flow rate, keep bag from exploding/tearing. Must inspect secondary barrier to prevent overfilling due to high flow rates.

Free discharge is difficult to contain for secondary treatment; have to use container/trailer.

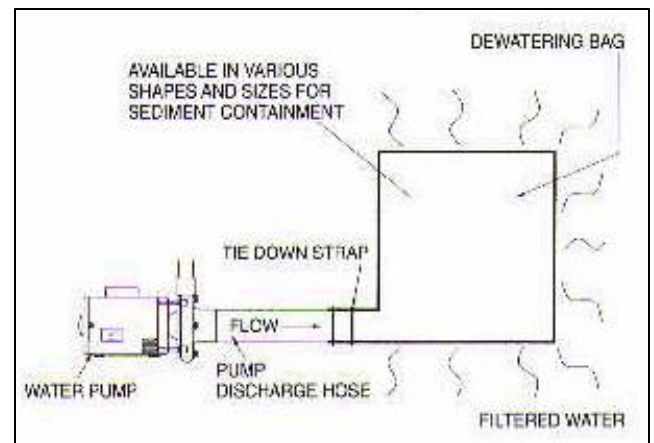
May cause erosion, unless appropriate measures are established.

Hose connection can fail.

Maintenance: Inspect flow, bag condition, bag capacity, and secondary barrier.
Replace bag when it no longer filters sediment or passes water at a reasonable rate.
Bag to be disposed offsite or onsite as directed by Resident Engineer.

Cost: 1.2 m x 18 m (4 ft x 6 ft) bag - \$100 each
3 m x 46 m (10 ft x 15 ft) bag - \$200 each
Cost of secondary barrier: \$500 - \$2,000, varies by size and site

Schematic Diagrams



B.3.6 Sand Media Particulate Filter

Description: Generally, sand filters provide a final level of treatment. They are often used as a secondary or higher level of treatment after a significant amount of sediments and other pollutants are removed. Can be used as a standalone treatment or in conjunction with bag and cartridge filtration, if further treatment is required.

Specifications:

Parameter		Specification	
		(Metric)	(English)
Flow Rate*		0.19 – 3.8 m ³ /minute	80 - 1,000 gpm
Footprint Dimensions	Minimum	1.2 m L x 0.6 m W + 1.5 m perimeter	4 ft L x 2 ft W + 5 ft perimeter
	Maximum	1.5 m L x 6.1 m W + 1.5 m perimeter	5 ft L x 20 ft W + 5 ft perimeter
Footprint Area	Minimum	15.8 m ²	170 ft ²
	Maximum	41.8 m ²	450 ft ²

*Depending on model selection

Pollutant Removal: Trash, sediment, metals, biological oxygen demand (BOD), turbidity
Typical particle size removed: down to 0.01 mm (10 microns) with 95 percent removal efficiency. Recirculation through a second unit can reduce particle size to 0.005 mm (5 microns) or less.

Product Availability: 1 - 2 days notice

Advantages: Portable, compact
Particle size removal and efficiency
Self-cleaning; back-washing makes this system cost-effective
Reduction of metals and other pollutants attached to soil particles

Set Up/ Installation: Requires level, compacted surface
Forklift required for off-loading from truck
Time: 2 hours

Limitations: Backwash controller requires power
Backwash tanks with clean water are required
Does not effectively remove colloidal particles

Maintenance: Once set up, requires monthly service to check level of (and add) sand media.

Cost: \$1,100 - 4,000/month rental per unit, depending on flow rate and project location
\$500 - \$1,500 set up charge
Media: \$50-\$100/month
Transportation Costs

Schematic Diagrams



B.3.7 Pressurized Bag Filter

Description: A pressurized bag filter is a unit composed of single filter bags made from polyester felt material. The water filters through the unit and is discharged through a header, allowing for the discharge of flow in series to an additional treatment unit. Vendors provide pressurized bag filters in a variety of configurations. Some units include a combination of bag filters and cartridge filters for enhanced pollutant removal.

Specifications:

Parameter	Specification	
	(Metric)	(English)
Bag Filter:		
Flow Rate	1.5 m ³ /minute	400 gpm
Footprint Dimensions	1.5 m L x 1 m W + 1.5 m perimeter	5 ft L x 3 ft W + 5 ft perimeter
Footprint Area	18.6 m ²	200 ft ²
Bag/Cartridge Filter Combination*:		
Flow Rate	0.19 – 1.5 m ³ /minute	50 - 400 gpm
Footprint (50 gpm)	1.5 m L x 1 m W	5 ft L x 3 ft W
Footprint (400 gpm)	3 m L x 1.8 m W	10 ft L x 6 ft W

*Varies by model

Pollutant Removal: Trash, sediment, metals, biological oxygen demand (BOD), turbidity, hydrocarbons
 Typical particle size removed: down to 0.002 mm (2 micron) with up to 99 percent removal efficiency depending on filter selected
 Oil absorbent bags available for hydrocarbon removal

Product Availability: 1-2 days

Advantages: High solids holding capacity.
 Bag filters have range of 0.002 mm to 0.1 mm (1 to 100 microns) rating.
 Bag/cartridge filter combination units can increase particle removal down to 0.0005 mm (0.5 microns).
 Skid mounted or trailer mounted.
 Individual bags placed in parallel can accommodate higher flow rates.
 Portable, compact.

Set Up/ Installation: Level, compacted surface
 Forklift required for skid units
 Time: 1 - 2 hours

Limitations: Expensive
 Does not effectively remove colloidal particles

Maintenance: Change filter bags when pressure differential exceeds manufacturer's recommendation

Cost: Bag Filter Unit: \$1,800/month rental + \$150 setup and fill charge

Bag/Cartridge Filter Combination Unit:

0.19 m³/minute (50 gpm) = \$850/month rental + \$150 set up charge

1.5 m³/minute (400 gpm) = \$3,400/month rental + \$500 set up charge

Maintenance: 0.19 m³/minute (50 gpm) = \$300/month

1.5 m³/minute (400 gpm) = \$1,250/month

Transportation Costs

Schematic Diagrams



B.3.8 Cartridge Filter

Description: Cartridge filters provide a high degree of pollutant removal by utilizing a number of individual cartridges as part of a larger filtering unit. They are often used as a secondary or higher (polishing) level of treatment after a significant amount of sediment and other pollutants are removed. Units come with various cartridge configurations (for use in series with pressurized bag filters) or with a larger single cartridge filtration unit (with multiple filters within).

Specifications:

Parameter	Specification	
	(Metric)	(English)
Flow Rate*	0.19 – 3.8 m ³ /minute	50 – 1,000 gpm
Footprint Dimensions	1.2 m L x 1 m W + 1.5 m perimeter	4 ft L x 3.5 ft W + 5 ft perimeter
Footprint Area	18.6 m ²	200 ft ²

*Single Cartridge Unit

Pollutant Removal: Trash, sediment, metals, biological oxygen demand (BOD), turbidity, hydrocarbons
Hydrocarbons can effectively be removed with special resin cartridges.
Typical particle size removed: to less than 0.002 mm (2 micron) with up to 99.9 percent removal efficiency depending on filter selected

Product Availability: 1 – 2 days

Advantages: Filtration through various types of cartridge media (paper, polypropylene, nylon, and cellulose).
Multi-cartridge filters provide a large surface area for a longer service life.
Particle size removal rating of 0.0005 to 0.100 mm (0.5 to 100 micron).
Skid mounted or trailer mounted.

Set Up/ Installation: Requires level, compacted surface
Skid mounted or trailer mounted
Forklift required for skid units
Time: 2 hours

Limitations: Expensive
Requires preliminary treatment
Will not remove colloidal particles

Maintenance: Change cartridges when pressure differential exceeds manufacturer's recommendation.

Cost: Single Cartridge Unit (90 individual cartridges) = \$800 - \$3,000/month rental
\$1,500 setup charge
Maintenance: \$1,000 - 5,000/month, depending on sediment loading
Transportation Costs

Schematic Diagram



B.4 SEDIMENT TREATMENT EQUIPMENT VENDORS - SALES/RENTAL

Table B-2 provides a partial list of vendors and suppliers for rental or purchase of sediment treatment equipment for dewatering. It is not representative of all available vendors.

Table B-2 Sediment Treatment Equipment Vendors

Vendor/Supplier	Products Available
Rain for Rent 1-661-387-6111 Mike Chase www.rainforrent.com	Weir tank Dewatering tank Pressurized bag filter Sand media filter Cartridge filter
Clear Creek Systems, Inc. 1-661-324-9634 Joe Gannon www.clearcreeksystems.com	Dewatering tank ("mud buggy") Pressurized bag filter Sand media filter Cartridge filter
Baker Tanks 1-800-BAKER 12 www.bakertanks.com	Weir tank Dewatering tank
Dandy Products 1-800-591-2284 www.acfenvironmental.com	Gravity (dewatering) bag filter

Appendix C

Water Quality and Discharge Parameters Assessment Form Dewatering Operations Monitoring Form

Water Quality and Discharge Parameters Assessment Form

Contract Number: _____

Resident Engineer: _____

Dewatering Location: _____

Origin of Water (circle): Groundwater Cofferdam/Diversion Accumulated Precipitation Other

Assessment Date: _____

WATER QUALITY ASSESSMENT

The following questions provide an initial assessment of the quality of the water to be discharged from the dewatering operation.			
Common Sense Test	1. Review the project records. Is there any reason to suspect that the water may be polluted by something other than sediment?	No	Yes
	2. Is the water located in an area of known contamination?	No	Yes
Sight Test	Does the water have an abnormal visual feature, such as: (circle) Oily Sheen Floating Foam Murky Appearance Unusual color Other		
Smell Test	Does the water have an odor? Possible odors include gasoline, petroleum, ammonia, sewage, etc.		
	No	Yes	
<p>If you answered YES to any of the above questions, explain.</p> <p><i>If you answered YES to any of the questions in the assessment or suspect that the water contains pollutants other than sediments, contact the Construction Storm Water Coordinator (CSWC) for assistance with additional testing and management options.</i></p>			

DISCHARGE PARAMETERS

To estimate water discharge parameters, answer the following questions and document the results below.			
Origin of Water	Is the discharge from (circle one): Groundwater Cofferdam/Diversion Accumulated Precipitation Other		
	Will the discharge be intermittent (associated with each rainstorm) or continuous (dewatering one area for a long period)? (circle) Intermittent Continuous		
Daily Flow Rate	<p>Estimate the total quantity of water and proposed discharge rate for each daily discharge event (Q_d, gallons per day). This can be estimated from the pump discharge rate and the expected daily total of hours the pump will be run. $Q_d = \text{_____ gpd}$</p> <p>$Q_d, \text{ gpd} = \text{_____ gals/min pump rate} \times 60 \text{ mins/hr} \times \text{_____ hrs discharge}$</p>		
Duration	What is the expected duration of the dewatering operation? _____ days		
Total Volume	<p>What is the estimated total discharge for the life of the project (V_T)? To estimate the total discharge, multiply the daily flow rate (Q_d) by the estimated duration. $V_T = \text{_____ Gallons}$</p>		
Comments:			

Dewatering Operations Monitoring Form

Contract Number: _____

Resident Engineer: _____

Location: _____

Caltrans Order No.: 99-06-DWQ, NPDES No. CAS000003

Discharge Start Date and Time: _____

Stop Date and Time: _____

BMP in Use: _____

Date	Time	Observer Initials	Pump Size or Estimated Flow Rate (gpm)	Effluent Visual Observation*	Comments**

Notes: *Visual clarity or other monitoring parameters (odor, oily sheen, floating foam, murky appearance, unusual color, etc.)

**Any maintenance or changes to system (increased/decreased output, system offline for 3 days, etc.)

gpm – gallons per minute

Appendix D

RWQCB NPDES General Permits that Regulate Dewatering

TABLE OF CONTENTS

APPENDIX D

Region 1 – North Coast RWQCB

Order No.: 93-61 – General National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges of Groundwater to Surface Water Related to Construction and Subsurface Seepage Dewatering Activities in the North Coast Region

Region 2 – San Francisco RWQCB

None. Site-specific NPDES permits only.

Region 3 – Central Coast RWQCB

None. Site-specific NPDES permits only.

Region 4 – Los Angeles RWQCB

Order No.: 97-043 – General National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements of Discharges of Treated Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties

Order No.: 97-045 – General National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements of Groundwater Discharges from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties

Region 5 – Central Valley RWQCB

Order No.: 5-00-175 – Waste Discharge Requirements General Order for Dewatering and Other Low Threat Discharges to Surface Waters

Region 6 – Lahontan RWQCB

Order No.: 6-98-36 – National Pollutant Discharge Elimination System (NPDES) General Permit for Limited Threat Discharges to Surface Waters

Order No.: 6-98-75 – Waste Discharge Requirements for Updated National Pollutant Discharge Elimination System Permit for Surface Water Disposal of Treated Ground Water

Region 7 – Colorado River Basin RWQCB

None. Site-specific NPDES permits only.

Region 8 – Santa Ana RWQCB

Order No.: 98-67 – General Waste Discharge Requirements for Discharges to Surface Waters Which Pose an Insignificant (De Minimus) Threat to Water Quality

Region 9 – San Diego RWQCB

Order No.: 2000-90 – Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto

Order No.: 2001-96 – General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges from Construction, Remediation, and Permanent Groundwater Extraction Projects to Surface Waters within the San Diego Region Except for San Diego Bay

Construction Dewatering

California Regional Water Quality Control Board
North Coast Region

ORDER NO. 93-61
NPDES PERMIT NO. CA0024902

GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
WASTE DISCHARGE REQUIREMENTS

FOR

DISCHARGES OF GROUNDWATER TO SURFACE WATER
RELATED TO
CONSTRUCTION AND SUBSURFACE SEEPAGE DEWATERING ACTIVITIES
IN THE NORTH COAST REGION

The California Regional Water Quality Control Board, North Coast Region
(hereinafter the Board), finds that:

1. The September 22, 1989, Memorandum of Agreement between the U.S. Environmental Protection Agency (hereinafter EPA) and the State Water Resources Control Board (hereinafter State Board) authorized and established procedures for the State to issue general National Pollutant Discharge Elimination System (NPDES) permits pursuant to 40 CFR 122.28 and 122.44.
2. 40 CFR 122.28 provides for the issuance of general permits to regulate a category of point sources if the sources: a) involve the same or substantially similar types of operations; b) discharge the same type of wastes; c) require the same type of effluent limitations or operating conditions; d) require similar monitoring; and, e) are more appropriately regulated under a general permit rather than individual permits.
3. Existing and future discharges of groundwater to surface waters from construction dewatering and subsurface seepage dewatering: a) result from similar operations - all involve extraction and discharge of groundwater; b) are the same type of waste - all are groundwater which may or may not contain pollutants; c) require similar effluent limitations for discharges to the same receiving waters; d) require similar minimum frequency of monitoring - annually; and, e) are determined to be more effectively regulated with general permits rather than individual permits. This Order therefore establishes requirements to regulate discharges of groundwater containing pollutants to surface waters under the jurisdiction of this Regional Board.

4. General waste discharge Requirements and NPDES permits will enable the Regional Board to expedite processing of requirements, simplify the application process for dischargers, better utilize limited staff resources, and avoid the expense and time involved in repetitive public noticing, hearings, and permit adoptions.
5. The Board adopted Water Quality Control Plans for the Klamath River Basin (1A) and the North Coastal Basin (1B) on March 20, 1975. The Klamath River Basin Plan (1A) was combined with the North Coastal Basin Plan (1B) to form the Water Quality Control Plan for the North Coast Region. The Plan for the North Coast Region was adopted by the Board on April 28, 1988 and approved by the State Water Resources Control Board on November 15, 1988. The Plan includes water quality objectives, implementation plans for point source and nonpoint source discharges and statewide plans and policies. The State Water Resources Control Board adopted the Inland Surface Waters Plan and the Enclosed Bays and Estuaries Plan on April 11, 1991.

6. This permit establishes effluent limitations for toxic substances as specified in Tables 1 and 2 of the Inland Surface Waters Plan.

The permittee is required to monitor the discharge for those substances likely to be in the permittee's waste stream as specified in the attached Monitoring and Reporting Program. This determination is based on a careful review of laboratory analyses of the discharge and descriptions of the dewatered area.

The permittee has certified that certain Table 1 and 2 substances are not in the waste stream, that no source has been identified which would likely result in the presence of such substances in the waste stream, and that no change has occurred that could cause such substance(s) to be present in the waste stream.

7. The permittee has submitted a report of waste discharge, an appropriate fee, and given notice of the intent to comply with the terms and conditions of this permit.
8. The beneficial uses of waters of the region include:
 - a. municipal and domestic supply
 - b. agricultural supply
 - c. industrial supply
 - d. groundwater recharge
 - e. freshwater replenishment
 - f. navigation
 - g. hydropower generation
 - h. water contact recreation
 - i. non-contact water recreation
 - j. ocean commercial and sport fishing
 - k. warm freshwater habitat
 - l. cold freshwater habitat

- m. preservation of areas of special biological significance
 - n. saline water habitat
 - o. wildlife habitat
 - p. preservation of rare and endangered species
 - q. marine habitat
 - r. fish migration
 - s. fish spawning
 - t. shellfish harvesting
9. Beneficial uses of areal groundwaters include:
- a. domestic water supply
 - b. agricultural water supply
 - c. industrial supply
10. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Clean Water Act and amendments thereto are applicable to the permittee.
11. On October 28, 1968, the State Water Resources Control Board adopted Resolution 68-16 "Statement of Policy with Respect to Monitoring High Quality of Waters in California", Which requires the application of best practicable treatment or control discharge to maintain high quality of receiving waters.
12. Section 301(b)(2) of the Clean Water Act requires that all NPDES permits prescribe the application of best available technology economically achievable in the determination of technology-based effluent limitations.
13. The requirements contained in this Order were established by considering all the water quality control policies, plans, and regulations mentioned above and will protect and maintain the beneficial uses of the receiving waters.
14. The issuance of general waste discharge requirements for the above described discharges is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389. The discharges that will be authorized under these general waste discharge requirements are not "new sources" as defined in 33 U.S.C., Section 306 and 40 CFR, Part 122.2.
- Moreover, as an activity for protection of the environment, in accordance with Title 14, California Code of Regulation, Section 14308, the issuance of general waste discharge requirements is exempt from the provisions of Chapter 3, Division 13, Section 21100, et seq.
15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

16. This Order will serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and will take effect at the end of ten days from the date of adoption by the Board.

THEREFORE, IT IS HEREBY ORDERED that the permittee, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. ELIGIBILITY

1. Existing and future discharges of groundwater to surface waters resulting from construction dewatering and for subsurface seepage dewatering and similar operations may be eligible for this permit.
2. When an individual NPDES permit with more specific requirements is issued to a discharger, the applicability of this general permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit.

B. AUTHORIZATION

To be authorized to discharge under this Order, the discharger must submit a Report of Waste Discharge and an application for a NPDES permit (hereinafter Report of Waste Discharge) in accordance with the requirements of Part C of this Order. Upon receipt of the Report of Waste Discharge, the Executive Officer shall determine the applicability of this Order to such a discharge (including an evaluation that the discharge will result in attainment of the objectives set forth in the water quality control plans discussed in Finding Nos. 5 and 6). If the Executive Officer so finds, he shall notify the discharger that its discharge is authorized under the terms and conditions of this Order and prescribe the appropriate monitoring and reporting program.

For new discharges, the discharge shall not commence until receipt of the Executive Officer's written determination.

C. REPORT OF WASTE DISCHARGE

1. Deadline for Submission
 - a. Existing dischargers who intend to obtain coverage under this Order shall file a Report of Waste Discharge within 90 days of the effective date of this Order.
 - b. New discharges shall file a Report of Waste Discharge at least 60 days before start of discharge.

2. Failure to Submit a Report of Waste Discharge

Dischargers who fail to file a report of waste discharge and discharge pollutants to the waters of the State are in violation of the California Water Code and the Federal Clean Water Act.

3. Alternative Method of Disposal

The Report of Waste Discharge shall be accompanied by a feasibility study of reuse of the groundwater. If reuse is not feasible, the Report of Waste Discharge shall be accompanied by a description of alternatives for disposal other than to surface waters.

D. DISCHARGE LIMITATIONS

Discharges authorized under this Order shall comply with the following discharge limitations, and additional limitations set forth in Attachment A. In the letter of determination, the Executive Officer shall indicate the discharge limitations in Attachment A applicable to the particular waste discharge.

1. The discharge of groundwater containing constituents in excess of the background level in the receiving water is prohibited.
2. The discharge of any waste not specifically regulated by this Permit is prohibited.
3. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC) is prohibited.
4. The discharge from the treatment facility of detectable levels of petroleum, petroleum constituents or volatile halogenated compounds is prohibited.¹

E. RECEIVING WATER LIMITATIONS

1. The waste discharge must not cause the dissolved oxygen concentration of the receiving water to be depressed below 7.0

¹For the purpose of this Permit, levels of detection are as follows:

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>DETECTION LIMIT</u>
Petroleum Hydrocarbons	ug/l	50
Benzene	ug/l	0.5
Toluene	ug/l	0.5
Xylene	ug/l	0.5
Ethylbenzene	ug/l	0.5
Volatile Halogenated Compounds	ug/l	0.5

mg/l. In the event that the receiving waters are determined to have dissolved oxygen concentration of less than 7.0 mg/l, the discharge shall not depress the dissolved oxygen concentration below the existing level.

2. The discharge must not cause the pH of the receiving waters to be depressed below 6.5 nor raised above 8.5. Within this range, the discharge shall not cause the pH of the receiving waters to be changed at any time more than 0.5 units from that which occurs naturally.
3. The discharge must not cause the turbidity of the receiving waters to be increased more than 20 percent above naturally occurring background levels.
4. The discharge must not cause the receiving waters to contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
5. The discharge must not cause the receiving waters to contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.
6. The discharge of waste must not cause esthetically undesirable discoloration of the receiving waters.
7. The discharge must not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.
8. The discharge must not contain concentrations of biostimulants which promote objectional aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses of the receiving waters.
9. The discharge must not cause the receiving waters to contain toxic substances in concentrations that are toxic to, degrade, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
10. The discharge must not cause a measurable temperature change in the receiving waters.
11. The discharge must not cause bioaccumulation of pesticide, fungicide, wood treatment chemical, or other toxic pollutant concentrations in bottom sediments or aquatic life to levels which are harmful to human health.

12. The discharge must not cause the receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that cause nuisance or that otherwise adversely affect beneficial uses.
13. This discharge must not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act, and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Permit in accordance with such more stringent standards.
14. The discharge must not cause concentrations of contaminants to occur at levels which are harmful to human health in waters which are existing or potential sources of drinking water.
15. The discharge must not cause concentrations of toxic pollutants in the water column, sediments, or biota that adversely affect beneficial uses.
16. The discharge must not cause acute nor chronic toxicity in the receiving waters.

F. SOLIDS DISPOSAL

1. This Permit does not authorize waste discharge to land. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a solid waste facility for which waste discharge requirements have been prescribed by a Regional Water Quality Control Board.

G. PROVISIONS

1. Duty to Comply

The permittee must comply with all of the conditions of this Permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [40CFR122.41(a)]

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement. [40CFR122.41(a)(1)]

2. Duty to Reapply

This permit expires on five years from the date of issuance. If the permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the permittee must apply for and obtain a new permit. The application, including a report of waste discharge in accordance with Title 23, California Code of Regulations must be received by the Board no later than 60 days prior to the expiration of this permit. [40CFR122.41(b)]

The Regional Administrator of the Environmental Protection Agency may grant permission to submit an application at a later date prior to the permit expiration date; and the Regional Administrator of the Environmental Protection Agency may grant permission to submit the information required by paragraphs(g)(7), (9), and (10) of 40CFR122.21 after the permit expiration date. [40CFR122.21(d)(2)]

3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. [40CFR122.41(c)]

4. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment. [40CFR122.41(d)]

5. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with this Permit. Proper operation and maintenance includes adequate laboratory control and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a permittee only when necessary to achieve compliance with the conditions of this Permit. [40CFR122.41(e)]

6. Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this Permit; or
- b. Obtaining this Permit by misrepresentation or failure to

- disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or
- d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
- e. A determination that a certification that substances identified in Tables 1 and 2 of the Inland Surface Waters Plan do not occur in the discharge is no longer valid.

The Board may also review and revise this Permit at any time upon application of any person, or on the Board's own motion. [CWC 13263(e)]

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant to this Permit, this Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified. [40CFR122.41(f)]

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. [40CFR122.41(f)]

7. Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. [40CFR122.41(g)]

8. Duty to Provide Information

The permittee shall furnish the Board, State Water Resources Control Board (SWRCB), or Environmental Protection Agency (EPA), within a reasonable time, any information which the Board, SWRCB, or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit or to determine compliance with this Permit. The permittee shall also furnish to the Board, upon request, copies of records required to be kept by this Permit. [40CFR122.41(h)]

The permittee shall conduct analysis on any sample provided by EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to EPA's DMQA manager.

9. Inspection and Entry

The permittee shall allow the Board, SWRCB, EPA, and/or other authorized representatives upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any locations. [40CFR122.41(i)]

10. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall calibrate and perform maintenance procedures in accordance with manufacturer's specifications on all monitoring instruments and equipment to ensure accurate measurements. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Board, SWRCB, or EPA at any time. All monitoring instruments and devices used by the permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least annually to ensure their continued accuracy.
- c. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;

- iii. The date(s) analyses were performed;
- iv. The individual(s) who performed the analyses;
- v. The analytical techniques or methods used; and
- vi. The results of such analyses.

- d. Unless otherwise noted, all sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Permit. Unless otherwise specified, all metals shall be reported as total metals. Test fish for bioassays and test temperatures shall be specified by the Board. Bioassays shall be performed in accordance with guidelines approved by the Board and the Department of Fish and Game.

11. Signatory Requirements

- a. All permit applications, reports, or information submitted to the Regional Board, State Board, and/or EPA shall be signed by a responsible corporate officer. For purposes of this provision, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

OR

For a Partnership or Sole Proprietorship, all permit applications, reports, or information submitted to the Regional Board, State Board, and/or EPA shall be signed by a general partner or the proprietor, respectively.

OR

For a Municipality, State, or Other Non-Federal Public Agency, all permit applications, reports, or information submitted to the Regional Board, State Board, and/or EPA shall be signed by either a principal executive officer or ranking elected official. [40CFR122.22(a)]

- b. Reports required by this Permit, other information requested by the Board, SWRCB, or EPA, and permit applications submitted for Group II stormwater discharges under 40CFR122.26(b)(3) may be signed by a duly authorized representative provided:
 - i. the authorization is made in writing by a person described in paragraph (a) of this provision;
 - ii. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - iii. the written authorization is submitted to the Board prior to or together with any reports, information, or applications signed by the authorized representative.
[40CFR122.22(b)(c)]
- c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
[40CFR122.22(d)]

12. Reporting Requirements

- a. Planned changes: The permittee shall give notice to the Regional Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40CFR122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants

which are subject neither to effluent limitations in the permit, nor the notification requirements under Provision 12 (g).

- b. Anticipated noncompliance: The permittee will give advance notice to the Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. Transfers: This Permit is not transferable.
- d. Definitions: The following definitions shall apply unless specified in this permit;
 - i. "Daily discharge" means the discharge of a pollutant measured during a calendar day of any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" shall be the concentrations of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the sampling day.
 - ii. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
 - iii. "Daily Maximum" discharge limitations means that highest allowable "daily discharge" during the calendar month.
- e. Monitoring reports: Monitoring results shall be reported at the intervals specified in the self monitoring program. By January 30 of each year, the permittee shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the permittee shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the permit. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

- f. Compliance schedules: Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- g. Noncompliance reporting: The permittee shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.

The following events shall be reported orally as soon as the permittee becomes aware of the circumstances, and the written report shall be provided within five days of that time.

- i. Any unanticipated bypass that violates any prohibition or exceeds any effluent limitation in the permit.
- ii. Any upset that exceeds any effluent limitation in the permit.
- iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Board in this Permit.
- iv. Any noncompliance that may endanger health or the environment.

The Executive Officer may waive the above-required written report.

- h. Other information: Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Board, the permittee shall promptly submit such facts or information. [40CFR122.41(1)]

13. Bypass

The intentional diversion of waste streams from any portion of a treatment facility is prohibited.

14. Upset

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof. [40 CFR 122.41(n)]

15. Enforcement

The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of violation. Any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment of not more than one year, or both. Higher penalties may be imposed for knowing violations and for repeat offenders. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided under the Clean Water Act.

16. Existing Manufacturing, Commercial, Mining, and Silvicultural permittees

All existing manufacturing, commercial, mining, and silvicultural permittees must notify the Board as soon as they know or have reason to believe that any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Permit, if that discharge will exceed one hundred micrograms per liter (100 ug/l). [40CFR122.42(a)(2)]

17. Availability

A copy of this Permit shall be maintained at the discharge facility and be available at all times to operating personnel.

18. Change in Discharge

In the event of a material change in the character, location, or volume of a discharge, (including any point or nonpoint discharge to land or groundwater) the permittee shall file with this Board a new report of waste discharge at least 180 days before making any such change. [CWC Section 13376]. A material change includes, but is not limited to, the following:

- a. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- b. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area, significantly removed from the original area, potentially causing different water quality or nuisance problems.

19. Severability

Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

20. Monitoring

The Board or SWRCB may require the permittee to establish and maintain records, make reports, install, use, and maintain monitoring equipment or methods (including where appropriate biological monitoring methods), sample effluent as prescribed, and provide other information as may be reasonably required. [CWC Section 13267 and 133834].

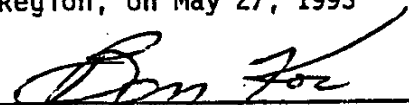
The permittee must comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the attached Monitoring and Reporting Program and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Permit and incorporated herein. The permittee shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Board.

Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the permittee, analyses performed by a noncertified laboratory will be accepted provided:

- a. A quality assurance/quality control program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by staff of the Board. The quality assurance/quality control program must conform to EPA or State Department of Health Services guidelines.
- b. The laboratory will become certified within the shortest practicable time if the State certification program is resumed.

Certification

I, Benjamin D. Kor, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on May 27, 1993

A handwritten signature in cursive script, appearing to read "Ben Kor", is written over a horizontal line.

Benjamin D. Kor
Executive Officer

(NPDES.GEN)

Attachment A

GUIDANCE FOR INLAND SURFACE WATERS PLAN
PROVISIONS TO BE INCLUDED IN
MONITORING AND REPORTING PROGRAMS
ASSOCIATED WITH NPDES PERMITS

Monitoring and Reporting Programs should include the following:

1. Table 1 and 2 substances which need to be monitored in the effluent. Monitoring may also be required to assess compliance with water quality objectives in the receiving water. At a minimum this list should include the substances which are or are likely to be in the permittee's waste stream per finding No. 6 of the permit.
2. Short-term (acute) toxicity test and/or three species critical life stage (CLS) toxicity test for applicable permittees. Table 4 of the Inland Surface Waters Plan and the Enclosed Bays and Estuaries Plan specify the species and test requirements for CLS toxicity tests.

(The following footnotes should also be specified in regards to the critical life stage tests:)

- * The sensitivity of the test organisms to a referenced toxicant shall be determined concurrently with each CLS bioassay and reported with the test results.
- * Dilution and control waters should be obtained from an unaffected area of the receiving waters upstream of the wastewater outfall. Standard dilution water can be used if the stream segment upstream of the outfall exhibits toxicity greater than 1.0 TUC.
- * Monitoring can be reduced to the most sensitive species after (date or condition)

3. Type of sample (grab, composite)
 4. Monitoring location
 5. Appropriate monitoring frequency
 6. Analytical methods to be used. Monitoring data to be reported uncensored with Method Detection Limit (MDL) and Practical Quantitation Limit (PQL) or Limit of Quantitation (LOQ).
- Aquatic life water quality objectives for cadmium, chromium, copper, lead, nickel, silver, and zinc are based on the acid-soluble fraction. Compliance with these objectives shall be determined using the total recoverable method (or a method approved by the State Board's Executive Director or EPA)
 - For objectives which are hardness- or pH-dependent, specify how to determine ambient water hardness or pH and that those measurements must be included with the results.

(For Bays and Estuaries dischargers delete need for hardness/pH testing to determine compliance with Effluent Limitations because these limitations are not hardness/pH dependent)

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 97-043
GENERAL NPDES PERMIT NO. CAG994002

GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES OF TREATED GROUNDWATER FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS
IN
COASTAL WATERSHEDS OF LOS ANGELES AND VENTURA COUNTIES
(Threat/Complexity Rating 3-B)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), finds:

1. On September 22, 1989, the United States Environmental Protection Agency (USEPA) granted the State of California, hence the Regional Boards, the authority to issue general National Pollutant Discharge Elimination System (NPDES) permits pursuant to 40 Code of Federal Regulations (CFR) § 122 and 123.
2. 40 CFR § 122.28 provides for issuance of general permits to regulate a category of point sources if the sources:
 - a. Involve the same or substantially similar types of operations;
 - b. Discharge the same type of waste;
 - c. Require the same type of effluent limitations or operating conditions;
 - d. Require similar monitoring; and
 - e. Are more appropriately regulated under a general permit rather than individual permits.
3. General waste discharge requirements and NPDES permits enable Regional Board staff to expedite the processing of requirements, simplify the application process for dischargers, better utilize limited staff resources, and avoid the expense and time involved in repetitive public noticing, hearings, and permit adoptions.
4. 1991 revisions (which became effective in 1992) to Title 23 of the California Code of Regulations (CCR), Division 3, Chapter 9, Article 1, §2200, *Annual Fee Schedule*, requires that all discharges subject to a specific general permit shall pay the same annual fee based on Threat to Water Quality and Complexity of discharges regulated under the general permit.

Revised May 12, 1997

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

5. On July 22, 1991, this Regional Board adopted Order No. 91-092 [General NPDES No. CAG990000] to regulate discharges of groundwater to surface waters in the region. This general permit was applicable to all groundwater discharges except those associated with groundwater cleanup. Depending on the Report of Waste Discharge, the Executive Officer¹ determined the annual fee based on the threat to water quality and complexity of the discharge. After the Annual Fee Schedule revisions (Finding 4), Order No. 91-092 has been used to regulate groundwater discharges that have a Threat to Water Quality of Category 3 and Complexity rating of C or a combined rating of 3-C. This Order is a reissuance of Order No. 91-092 with a rating of 3-B.
6. Discharges with a rating of 3-B contain pollutants that may degrade the water quality or cause a minor impairment of the designated beneficial uses of the receiving waters and will need treatment to meet the requirements prescribed in this Order. Groundwater contaminants may include oil, solids, salts, sewage, chemicals, and hydrocarbons at levels that will need treatment to comply with the requirements prescribed in this Order. The treatment system may include physical, chemical, and/or biological treatment.
7. Activities that result in discharges of groundwater covered by this general permit includes, but are not limited to, construction dewatering (including incidental collected stormwater), subterranean seepage dewatering, well development and test pumping, aquifer testing, and monitoring well construction. This Order is not applicable to groundwater discharges associated with soil and/or groundwater cleanups.
8. Pursuant to §2, Article X, California Constitution, and §275, Article 3, Porter-Cologne Water Quality Control Act (Water Code) on preventing waste and unreasonable use of waters of the state, this Regional Board encourages, wherever practical, water conservation and/or re-use of wastewater. To obtain coverage under this Order, the discharger shall first investigate the feasibility of conservation, land disposal and/or reuse of groundwater.
9. This Regional Board adopted *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles* contained in Order No. 96-054 [NPDES No. CAS614001] and *Waste Discharge Requirements for Storm Water Management/Urban Runoff Discharges for Ventura County Flood Control District, County of Ventura, and the Cities of Ventura County* contained in Order No. 94-082 [NPDES No. CAS063339] on July 15, 1996, and June 22, 1994, respectively. These Orders prohibit nonstorm water discharges to storm drain systems unless they are covered by separate NPDES permits. This prohibition, in general, does not apply to rising groundwater, uncontaminated groundwater infiltration discharges, discharges

¹ Any reference to Executive Officer in this Order means Executive Officer of this Regional Board.

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

from potable water sources², foundation and footing drains discharges, and water from crawl space pumps. The municipality may allow discharge of these type of discharges into the storm drain system. However, the municipality or the Regional Board may prohibit these discharges if they are determined to cause, or threaten to cause, degradation of water quality, violation of water quality objectives, cause nuisance and/or impair beneficial uses of receiving waters.

10. On August 15, 1996, the State Water Resources Control Board adopted a statewide general order and NPDES permit, *Waste Discharge Requirements for Discharges by Utility Companies to Surface Waters* [Order No. 96-12-DWQ, NPDES No. CAG990002]. Utility companies may have multiple discharges of small volumes of groundwater from utility vaults and other underground structures resulting from subterranean seepage. These discharges are covered by the statewide general order and permit unless it is determined, pursuant to provisions thereof, that these discharges are more appropriately regulated under Regional Board-issued permits.
11. On June 13, 1994, this Regional Board adopted a revised basin plan, *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*. The plan incorporates, by reference, State Water Resources Control Board's Water Quality Control Plans and policies on ocean waters [*Water Quality Control Plan for Ocean Waters in California*, March 22, 1990], temperature [*Water Quality Control Plan for Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, amended September 18, 1975] and antidegradation [*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968].
12. The Basin Plan contains water quality objectives for, and lists the beneficial uses of, specific water bodies (receiving waters) in the Los Angeles Region. Typical beneficial uses include the following:
 - ▶ Above the estuary - municipal and domestic supply, industrial service and process supply, agricultural supply, groundwater recharge, freshwater replenishment, aquaculture, warm and cold freshwater habitats, inland saline water and wildlife habitats, water contact and noncontact recreation, fish migration, and fish spawning.
 - ▶ Within and below the estuary - industrial service supply, marine and wetland habitats, estuarine and wildlife habitats, water contact and noncontact recreation, commercial and sport fishing, aquaculture, migration of aquatic

² Potable water sources means flows from drinking water storage, supply and distribution systems, including flows from system failures, pressure releases, system maintenance, well development, pump testing, fire hydrant flow testing; and flushing and dewatering of pipes, reservoirs, vaults, and wells.

**DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS**

**Order No. 97-043
CAG994002(3-B)**

organisms, fish migration, fish spawning, preservation of rare and endangered species, preservation of biological habitats, and shellfish harvesting.

- ▶ Coastal Zones (both nearshore and offshore) - industrial service supply, navigation, water contact and noncontact recreation, commercial and sport fishing, marine habitat, wildlife habitat, fish migration and spawning, shellfish harvesting, and rare, threatened, or endangered species habitat.
13. This Regional Board has implemented a Watershed Management Approach (WMA) to address water quality protection in the region. The objective is to provide a comprehensive and integrated strategy towards water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. It emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with resources available. This general permit and the accompanying Monitoring and Reporting Program aid in accomplishing the WMA. The Executive Officer may require the dischargers under this Order to participate in regional monitoring programs for the watershed where they are discharging.
 14. Effluent limitations and toxic and effluent standards established pursuant to §301, 302, 304, 306, and 307 of the Clean Water Act, as amended, are applicable to discharges under this Order.
 15. The requirements contained in this Order were established by considering, and are consistent with, all the water quality control policies, plans, and regulations mentioned above and, if they are met, will protect and maintain the beneficial uses of the receiving waters.
 16. The issuance of general waste discharge requirements for the above described discharges is exempt from the provisions of Chapter 3 (commencing with §21100, et. seq.), Division 13, Public Resources Code, pursuant to Water Code §13389. New discharges that will be authorized under this Order are not "new sources" as defined in 33 U.S.C. §306 and 40 CFR §122.2.

The Board has notified interested agencies, parties, and persons of its intent to issue general waste discharge requirements for discharges of treated groundwater from construction and project dewatering to surface waters and has provided them with an opportunity to submit their written views and recommendations.

The Board, in a public hearing, heard and considered all comments pertaining to the discharges to be regulated under this Order and to the tentative requirements.

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

This Order shall serve as a general NPDES permit pursuant to §402 of the Clean Water Act, or amendments thereto, and shall take effect at the end of ten days from the date of its adoption provided the Regional Administrator, USEPA, has no objections.

IT IS HEREBY ORDERED that dischargers authorized under this Order and general permit, in order to meet the provisions contained in Division 7 of the California Water Code, and regulations adopted thereunder, and the provisions of the Federal Clean Water Act, and regulations and guidelines adopted thereunder, shall comply with the following:

A. ELIGIBILITY

1. Existing and future discharges of treated waste water to surface waters resulting from groundwater dewatering or seepage (including incidental collected stormwater); well construction, development, and/or testing; aquifer testing; and similar operations.
2. To be covered under this Order, discharges must meet the following criteria:
 - a. Pollutant concentrations in the discharge shall not cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;
 - b. The discharge shall not cause acute nor chronic toxicity in receiving waters; and;
 - c. The discharge shall pass through an appropriate treatment system to meet the requirements of this Order.
3. New discharges and existing discharges regulated under existing individual permits and Order No. 91-092 which meet the eligibility criteria may be regulated under this Order.
4. For the purpose of renewal of existing individual NPDES permits with this general permit, provided that all the conditions of this general permit are met, renewal is effective upon issuance of a notification by the Executive Officer and issuance of a new monitoring program.
5. When an individual NPDES permit with more specific requirements is issued to a discharger, the applicability of this Order to that discharger is automatically terminated on the effective date of the individual permit.

**DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS**

**Order No. 97-043
CAG994002(3-B)**

B. AUTHORIZATION

To be authorized to discharge under this Order, the discharger must submit a Report of Waste Discharge and an application for an NPDES permit (hereinafter Report of Waste Discharge) in accordance with the requirements of Part C of this Order. Upon receipt of the application, the Executive Officer shall determine the applicability of this Order to such a discharge. If the discharge is eligible, the Executive Officer shall notify the discharger that the discharge is authorized under the terms and conditions of this Order and prescribe an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the Executive Officer's written determination.

C. REPORT OF WASTE DISCHARGE

1. Deadline for Submission

- a. Renewal of permits of existing dischargers covered under individual permits that meet the eligibility criteria in Part A and have submitted Reports of Waste Discharge will consist of a letter of determination from the Executive Officer of coverage under this Order.
- b. Existing dischargers covered under Order No. 91-092 will be sent a Notice of Intent (NOI) form that must be completed and returned to the Regional Board within 45 days of receipt; otherwise permit coverage will be revoked. However, instead of an NOI, the Executive Officer may require existing dischargers to submit a new Report of Waste Discharge, may revise their monitoring and reporting requirements, and/or may require them to participate in a regional monitoring program.
- c. New dischargers shall file a complete application at least 30 days before commencement of the discharge.

2. Forms for Report of Waste Discharge

- a. Dischargers shall use the appropriate USEPA Forms or equivalent forms approved by the Regional Board or the Executive Officer.
- b. The discharger, upon request, shall submit any additional information that the Executive Officer deems necessary to determine whether the discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.
- c. The Report of Waste Discharge shall include a feasibility study on reuse and/or alternative disposal methods of the groundwater.

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

- d. The Report of Waste Discharge shall be accompanied by the first annual fee (if appropriate) in accordance with the *Annual Fee Schedule* for a discharge with a rating of 3-B. The check or money order shall be made payable to the "State Water Resources Control Board."

D. DISCHARGE PROHIBITIONS

1. The discharge of wastes other than those which meet eligibility requirements in Part A of this Order is prohibited unless the discharger obtains coverage under another general permit or an individual permit that regulates the discharge of such wastes.
2. The purposeful or knowing discharge of polychlorinated biphenyls (PCBs) is prohibited.
3. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

E. EFFLUENT LIMITATIONS

1. Discharge of an effluent in excess of the following limitations is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Discharge Limitations</u>	
		<u>Monthly Average</u>	<u>Daily Maximum</u>
Total Suspended Solids	mg/L	50	150
Turbidity	NTU	50	150
BOD ₅ 20°C	mg/L	20	30
Oil and Grease	mg/L	10	15
Settleable Solids	ml/L	0.1	0.3
Sulfides	mg/L	---	1.0
Phenols	mg/L	---	1.0
Phenolic Compounds (chlorinated)	µg/L	---	1.0
Residual Chlorine	mg/L	---	0.1
Detergents as Methylene Blue Active Substances (MBAS)	mg/L	---	0.5

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

2. Discharge of an effluent in excess of the following limitations is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Daily Maximum</u>
Benzene	µg/L	1.0
Toluene	µg/L	150
Ethylbenzene	µg/L	700
Xylene	µg/L	1750
Ethylene Dibromide	µg/L	0.05
Carbon Tetrachloride	µg/L	0.5
Tetrachloroethylene	µg/L	5.0
Trichloroethylene	µg/L	5.0
1,4-dichlorobenzene	µg/L	5.0
1,1-dichloroethane	µg/L	5.0
1,2-dichloroethane	µg/L	0.5
1,1-dichloroethylene	µg/L	6.0
Vinyl Chloride	µg/L	0.5
Arsenic	µg/l	50
Cadmium	µg/L	10
Chromium	µg/L	50
Copper	µg/L	1000
Lead	µg/L	50
Mercury	µg/L	2
Selenium	µg/L	10
Silver	µg/L	50
Total Petroleum Hydrocarbons	µg/L	100
Methyl Tertiary Butyl Ether (MTBE)	µg/L	35

**DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS**

**Order No. 97-043
CAG994002(3-B)**

3. The pH of the discharge shall at all times be within the range of 6.0 and 9.0.
4. The temperature of the discharge shall not exceed 100°F.
5. The discharge of an effluent with mineral and nitrogen constituents in excess of applicable limits given in Attachment A is prohibited. In the letter of determination, the Executive Officer shall indicate the watershed/stream reach limitations in Attachment A applicable to the particular discharge.
6. Pass-through or uncontrollable discharges of PCBs shall not exceed daily average concentrations of 14 ng/L into fresh waters or 30 ng/L into estuarine waters.
7. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test less than 70% survival.
8. The discharge shall meet effluent limitations and toxic and effluent standards established pursuant to §301, 302, 304, 306, and 307 of the Clean Water Act, and amendments thereto.

F. RECEIVING WATER LIMITATIONS

1. The discharge shall not cause the following to be present in receiving waters:
 - a. Toxic pollutants at concentrations that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health;
 - b. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;
 - c. Chemical substances in amounts that adversely affect any designated beneficial use;
 - d. Visible floating materials, including solids, liquids, foams, and scum;
 - e. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

- f. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;
 - g. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;
 - h. Substances that result in increases of BOD_5 at $20^\circ C$ that adversely affect beneficial uses;
 - i. Fecal coliform concentrations which exceed a log mean of 200 per 100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10% of total samples during any 30-day period exceed 400 per 100 ml; and
 - j. Concentrations of toxic substances that are toxic to, or cause detrimental physiological responses in, human, animal, or aquatic life.
2. The discharge shall not cause the following to occur in the receiving waters:
- a. The dissolved oxygen to be depressed below:

WARM ³ designated waters	5 mg/L
COLD ³ designated waters	6 mg/L
COLD and SPWN ³ Designated waters	7 mg/L.
 - b. The pH to be depressed below 6.5 or raised above 8.5, and the ambient pH levels to be changed from natural conditions in inland waters more than 0.5 units or in estuaries more than 0.2 units;
 - c. The temperature at any time or place and within any given 24-hour period to be altered by more than $5^\circ F$ above natural temperature; but at no time be raised above $80^\circ F$ for waters with a beneficial use of WARM (Warm Freshwater Habitat);
 - d. The turbidity to increase to the extent that such an increase causes nuisance or adversely affects beneficial uses; such increase shall not exceed 20% when the natural turbidity is over 50 NTU or 10% when the natural turbidity is 50 NTU or less;

³ Beneficial Uses: WARM - Warm Freshwater Habitat; COLD - Cold Freshwater Habitat; SPWN - Spawning, Reproduction, and/or Early Development.

**DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS**

**Order No. 97-043
CAG994002(3-B)**

- e. Residual chlorine in concentrations that persist and impairs beneficial uses; and,
 - f. Any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses or increase pesticide concentration in bottom sediments or aquatic life.
- 3. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.
 - 4. The discharge shall not degrade surface water communities and population including vertebrate, invertebrate, and plant species.
 - 5. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
 - 6. The discharge shall not cause problems associated with breeding of mosquitos, gnats, black flies, midges, or other pests.

G. PROVISIONS

- 1. The Executive Officer may require any discharger authorized under this Order to apply for and obtain an individual NPDES permit with more specific requirements. The Executive Officer may require any discharger authorized to discharge under this permit to apply for an individual permit only if the discharger has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual permit, the authority to discharge under this General Permit is no longer applicable.
- 2. Dischargers authorized under this Order shall maintain a copy of this Order at the waste disposal facility where it will be available at all times to operating personnel.
- 3. Prior to application, the discharger shall submit for Executive Officer's approval the list of chemicals and proprietary additives that may affect the discharge, including rates/quantities of application, compositions, characteristics, and material safety data sheets, if any.

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

4. Oil or oily materials, chemicals, refuse, or other materials that may cause pollution in storm water and/or urban runoff shall not be stored or deposited in areas where they may be picked up by rainfall/urban runoff and discharged to surface waters. Any spill of such materials shall be contained, removed and cleaned immediately.
5. This Order neither exempt the discharger from compliance with any other laws, regulations, or ordinances that may be applicable, nor legalize the waste disposal facility.
6. The discharger shall allow the Regional Board and its authorized representatives entry to the premises to inspect and undertake any activity to determine compliance with this Order, or as otherwise authorized by the California Water Code.
7. The discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
8. All applications, reports, or information submitted to the Regional Board shall be signed:
 - a. For corporations, by a principal executive officer at least of the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
 - b. For a partnership, by a general partner;
 - c. For a sole proprietorship, by the proprietor;
 - d. For a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
9. Pursuant to 40CFR §122.61(b), coverage under this Order may be transferred in case of change of ownership of land or discharge facility provided the existing discharger notifies the Executive Officer at least 30 days before the proposed transfer date, and the notice includes a written agreement between the existing and new dischargers containing a specific date of transfer of coverage, responsibility for compliance with this Order, and liability between them.
10. Pursuant to 40CFR §122.62 and 122.63, this Order may be modified, revoked and reissued, or terminated for cause. Reasons for modification may include

**DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS**

**Order No. 97-043
CAG994002(3-B)**

new information on the impact of discharges regulated under this Order become available, promulgation of new effluent standards and/or regulations, adoption of new policies and/or water quality objectives, and/or new judicial decisions affecting requirements of this Order,

11. Any discharge authorized under this Order may request to be excluded from coverage of this Order by applying for an individual permit.

H. MONITORING AND REPORTING REQUIREMENTS

1. The Executive Officer is hereby authorized to prescribe a Monitoring and Reporting Program for each authorized discharger. This program may include participation of the discharger in a regional monitoring program.
2. The discharger shall retain records of all monitoring information and data used to complete the Report of Waste Discharge and application for coverage under this Order for at least five years from the date of sampling, measurement, report, or application. The retention period shall be extended during any unresolved litigation regarding the discharge or when requested by the Executive Officer.
3. The discharger shall maintain all sampling, measurement and analytical results, including: the date, exact place, and time of sampling or measurement; individual(s) who did the sampling or measurement; the date(s) analyses were done; analysts' names; and analytical techniques or methods used.
4. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR §136, unless other test procedures have been specified in this Order or by the Executive Officer.
5. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or other state agency authorized to undertake such certification.
6. The discharger shall calibrate and maintain all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.
7. For parameters/constituents where both monthly average and daily maximum limits are prescribed, but where monitoring frequency is less than four times a month, the following procedure shall apply:

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

If analysis of a sample yields a result greater than the monthly average limit for a parameter/constituent, the sampling frequency for that parameter/constituent shall increase to weekly within one week of receiving the laboratory result until at least four consecutive weekly samples are obtained and compliance with the monthly average has been demonstrated, and the discharger has submitted for Executive Officer approval a program that will ensure future compliance with the monthly average limit.

I. REPORTING REQUIREMENTS

1. The discharger shall file with the Regional Board (Attention: Technical Support Unit) technical reports on self-monitoring work conducted according to the Monitoring and Reporting Program specified by the Executive Officer and submit other reports as requested by the Regional Board.
2. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, constituents, and concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements.
3. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
4. Each monitoring report must contain an affirmation in writing that:

"All analyses were conducted at a laboratory certified for such analyses by _____ and in accordance with current USEPA procedures or as specified in this Monitoring Program."

5. Each report shall contain the following completed declaration:

"I declare under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system or those directly responsible for gathering the information, the information submitted, is, to the best of

Order No. 97-043
CAG994002(3-B)

Executed on the ____ day of _____ at _____

6. Whenever wastes, associated with the discharge under this Order, are transported to a different disposal site, the following shall be reported in the monitoring report: type and quantity of wastes; name and address of the hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal.
7. The discharger shall file a report of any material change or proposed change in the character, location or volume of the discharge.
8. The discharger shall notify this Regional Board within 24 hours by telephone of any adverse condition resulting from the discharge, such notification shall be affirmed in writing within five working days.

1. The discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act and the Water Code and is subject to enforcement action and/or permit termination.
2. The Clean Water Act and the Water Code provide for civil and criminal penalties for violations of waste discharge requirements.

This Order expires on April 10, 2002; however, for those dischargers authorized to discharge under this Order, it shall continue in full force and effect until a new order is adopted.

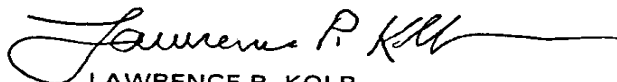
DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

L. REAUTHORIZATION

Upon reissuance of a new general permit order, dischargers authorized under this Order shall file a Notice of Intent or a new Report of Waste Discharge within 45 days of notification by the Executive Officer.

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on May 12, 1997.



LAWRENCE P. KOLB
Acting Executive Officer

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

ATTACHMENT A

Discharge of wastewater within a watershed/stream reach with constituent concentrations in excess of the following daily maximum limits is prohibited:

WATERSHED/STREAM REACH	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron* (mg/L)	Nitrogen** (mg/L)
1. <u>Miscellaneous Ventura Coastal Streams:</u>					
2. <u>Ventura River Watershed:</u>		no waterbody specific limits			
a. Above Camino Cielo Road	700	300	50	1.0	5
b. Between Camino Cielo Road and Casitas Vista Road	800	300	60	1.0	5
c. Between Casitas Vista Road and confluence with Weldon Canyon	1000	300	60	1.0	5
d. Between confluence with Weldon Canyon and Main Street	1500	500	300	1.5	10
e. Between Main St. and Ventura River Estuary		no waterbody specific limits			
3. <u>Santa Clara River Watershed:</u>					
a. Above Lang gaging station	500	100	50	0.5	5
b. Between Lang gaging station and Bouquet Canyon Road Bridge	800	150	100	1.0	5
c. Between Bouquet Canyon Road Bridge and West Pier Highway 99	1000	300	100	1.5	10
d. Between West Pier Highway 99 and Blue Cut gaging station	1000	400	100	1.5	5
e. Between Blue Cut gaging station and A Street, Fillmore	1300	600	100	1.5	5
f. Between A Street, Fillmore and Freeman Diversion "Dam" near Saticoy	1300	650	80	1.5	5
g. Between Freeman Diversion "Dam" near Saticoy and Highway 101 Bridge	1200	600	150	1.5	—
h. Between Highway 101 Bridge and Santa Clara River Estuary		no waterbody specific limits			
i. Santa Paula Creek above Santa Paula Water Works Diversion Dam	600	250	45	1.0	5
j. Sespe Creek above gaging station, 500 feet downstream from Little Sespe Creek	800	320	60	1.5	5
k. Piru Creek above gaging station below Santa Felicia Dam	800	400	60	1.0	5
4. <u>Calleguas Creek Watershed:</u>					
a. Above Potrero Road	850	250	150	1.0	10
b. Below Potrero Road		no waterbody specific limits			
5. <u>Miscellaneous Los Angeles County Coastal Streams:</u>					
a. Malibu Creek Watershed:	2000	no waterbody specific limits			
b. Ballona Creek Watershed:		no waterbody specific limits			
6. <u>Dominguez Channel Watershed:</u>		no waterbody specific limits			
7. <u>Los Angeles River Watershed:</u>					
a. Los Angeles River and Tributaries - upstream of Sepulveda Flood Control Basin	950	300	150	—	8
b. Los Angeles River - between Sepulveda Flood Control Basin and Figueroa Street. Includes Burbank Western Channel only.	950	300	190	—	8
c. Other tributaries to Los Angeles River - between Sepulveda Flood Control Basin and Figueroa Street	950	300	150	—	8
d. Los Angeles River - between Figueroa Street and L. A. River Estuary (Willow Street). Includes Rio Hondo below Santa Ana Freeway	1500	350	190	—	8
e. Other tributaries to Los Angeles River - between Figueroa Street and Los Angeles River Estuary. Includes Arroyo Seco downstream of spreading grounds.	1550	350	150	—	8

DISCHARGES OF TREATED GROUNDWATER
FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS

Order No. 97-043
CAG994002(3-B)

ATTACHMENT A
(Continued)

WATERSHED/STREAM REACH	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron* (mg/L)	Nitrogen** (mg/L)
7. Los Angeles River Watershed (continued):					
f. Rio Hondo - between Whittier Narrows Flood Control Basin and Santa Ana Freeway	750	300	180	---	8
g. Rio Hondo - upstream of Whittier Narrows Flood Control Basin	750	300	150	---	8
h. Santa Anita Creek above Santa Anita spreading grounds	250	30	10	---	---
i. Eaton Canyon Creek above Eaton Dam	250	30	10	---	---
j. Arroyo Seco above spreading grounds	300	40	15	---	---
k. Big Tujunga Creek above Hansen Dam	350	50	20	---	---
l. Pacoima Wash above Pacoima spreading grounds	250	30	10	---	---
8. San Gabriel River Watershed:					
a. San Gabriel River above Morris Dam	250	30	10	0.6	2
b. San Gabriel River between Morris Dam and Ramona Blvd.	450	100	100	0.5	8
c. San Gabriel River and tributaries - between Ramona Blvd. and Valley Blvd.	750	300	150	1.0	8
d. San Gabriel River - between Valley Blvd. and Firestone Blvd. Includes Whittier Narrows Flood Control Basin and San Jose Creek - downstream of 71 Freeway only.	750	300	180	1.0	8
e. San Jose Creek and tributaries - upstream of 71 Freeway	750	300	150	1.0	8
f. San Gabriel River - between Firestone Blvd. and San Gabriel River Estuary (downstream from Willow Street). Includes Coyote Creek.					
g. All other minor San Gabriel Mountain streams tributary to San Gabriel Valley	300	40	15	---	---
9. Los Angeles Harbor/ Long Beach Harbor Watershed					
					no waterbody specific limits
10. Santa Ana River Watershed					
a. San Antonio Creek***	225	25	---	---	---
b. Chino Creek***	---	---	---	---	---
11. Island Watercourses:					
a. Anacapa Island					no waterbody specific limits
b. San Nicolas Island					no waterbody specific limits
c. Santa Barbara island					no waterbody specific limits
d. Santa Catalina Island					no waterbody specific limits
e. San Clemente Island					no waterbody specific limits

* Where naturally occurring boron results in concentrations higher than the stated limit, a site-specific limit may be determined on a case-by-case basis.

** Nitrate-nitrogen plus nitrite-nitrogen (NO₃-N + NO₂-N). The lack of adequate nitrogen data for all streams precluded the establishment of numerical limits for all streams.

*** These watercourses are primarily located in the Santa Ana Region. The water quality objectives for these streams have been established by the Santa Ana Regional Board. Dashed lines indicate that numerical objectives have not been established, however, narrative objectives shall apply. Refer to the Santa Ana Region Basin Plan for more details.

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 97-045
GENERAL NPDES PERMIT NO. CAG994001

GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
FOR
GROUNDWATER DISCHARGES FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS
IN
COASTAL WATERSHEDS OF LOS ANGELES AND VENTURA COUNTIES
(Threat/Complexity Rating 3-C)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), finds:

1. On September 22, 1989, the United States Environmental Protection Agency (USEPA) granted the State of California, hence the Regional Boards, the authority to issue general National Pollutant Discharge Elimination System (NPDES) permits pursuant to 40 Code of Federal Regulations (CFR) §122 and 123.
2. 40 CFR §122.28 provides for issuance of general permits to regulate a category of point sources if the sources:
 - a. Involve the same or substantially similar types of operations;
 - b. Discharge the same type of waste;
 - c. Require the same type of effluent limitations or operating conditions;
 - d. Require similar monitoring; and
 - e. Are more appropriately regulated under a general permit rather than individual permits.
3. General waste discharge requirements and NPDES permits enable Regional Board staff to expedite the processing of requirements, simplify the application process for dischargers, better utilize limited staff resources, and avoid the expense and time involved in repetitive public noticing, hearings, and permit adoptions.
4. 1991 revisions (which became effective in 1992) to Title 23 of the California Code of Regulations (CCR), Division 3, Chapter 9, Article 1, §2200, *Annual Fee Schedule*, requires that all discharges subject to a specific general permit shall pay the same annual fee based on Threat to Water Quality and Complexity of discharges regulated under the general permit.

Revised May 12, 1997

5. On July 22, 1991, this Regional Board adopted Order No. 91-092 [General NPDES No. CAG990000] to regulate discharges of groundwater to surface waters in the region. This general permit was applicable to all groundwater discharges except those associated with groundwater cleanup. Depending on the Report of Waste Discharge, the Executive Officer¹ determined the annual fee based on the threat to water quality and complexity of the discharge. After the Annual Fee Schedule revisions (Finding 4), Order No. 91-092 has been used to regulate groundwater discharges that have a Threat to Water Quality of Category 3 and Complexity rating of C or a combined rating of 3-C. This Order is a reissuance of Order No. 91-092 with a rating of 3-C.
6. Discharges with a rating of 3-C contain pollutants that may degrade the water quality or cause a minor impairment of designated beneficial uses of the receiving waters but will not need a treatment system to comply with requirements prescribed in this Order. Groundwater contaminants may include organic compounds such as oil and grease, fuel hydrocarbons, and chlorinated solvents; dissolved solids such as inorganic salts and metals; minerals; dissolved gases such as hydrogen sulfide; and solids such as silts, organic debris, and bacteria.
7. Activities that result in discharges of groundwater covered by this general permit includes, but are not limited to, construction dewatering (including incidental collected stormwater), subterranean seepage dewatering, well development and test pumping, aquifer testing, and monitoring well construction. This Order is not applicable to groundwater discharges associated with soil and/or groundwater cleanups.
8. Pursuant to §2, Article X, California Constitution, and §275, Article 3, Porter-Cologne Water Quality Control Act (Water Code) on preventing waste and unreasonable use of waters of the state, this Regional Board encourages, wherever practical, water conservation and/or re-use of wastewater. To obtain coverage under this Order, the discharger shall first investigate the feasibility of conservation, land disposal and/or reuse of groundwater.
9. This Regional Board adopted *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles* contained in Order No. 96-054 [NPDES No. CAS614001] and *Waste Discharge Requirements for Storm Water Management/Urban Runoff Discharges for Ventura County Flood Control District, County of Ventura, and the Cities of Ventura County* contained in Order No. 94-082 [NPDES No. CAS063339] on July 15, 1996, and June 22, 1994, respectively. These Orders prohibit nonstorm water discharges to storm drain systems unless they are covered by separate NPDES permits. This prohibition, in general, does not apply to rising groundwater, uncontaminated groundwater infiltration discharges, discharges

¹ Any reference to Executive Officer in this Order means Executive Officer of this Regional Board.

from potable water sources², foundation and footing drains discharges, and water from crawl space pumps. The municipality may allow discharge of these type of discharges into the storm drain system. However, the municipality or the Regional Board may prohibit these discharges if they are determined to cause, or threaten to cause, degradation of water quality, violation of water quality objectives, cause nuisance and/or impair beneficial uses of receiving waters.

10. On August 15, 1996, the State Water Resources Control Board adopted a statewide general order and NPDES permit, *Waste Discharge Requirements for Discharges by Utility Companies to Surface Waters* [Order No. 96-12-DWQ, NPDES No. CAG990002]. Utility companies may have multiple discharges of small volumes of groundwater from utility vaults and other underground structures resulting from subterranean seepage. These discharges are covered by the statewide general order and permit unless it is determined, pursuant to provisions thereof, that these discharges are more appropriately regulated under Regional Board-issued permits.
11. On June 13, 1994, this Regional Board adopted a revised basin plan, *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*. The plan incorporates, by reference, State Water Resources Control Board's Water Quality Control Plans and policies on ocean waters [*Water Quality Control Plan for Ocean Waters in California*, March 22, 1990], temperature [*Water Quality Control Plan for Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, amended September 18, 1975] and antidegradation [*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968].
12. The Basin Plan contains water quality objectives for, and lists the beneficial uses of, specific water bodies (receiving waters) in the Los Angeles Region. Typical beneficial uses include the following:
 - ▶ Above the estuary - municipal and domestic supply, industrial service and process supply, agricultural supply, groundwater recharge, freshwater replenishment, aquaculture, warm and cold freshwater habitats, inland saline water and wildlife habitats, water contact and noncontact recreation, fish migration, and fish spawning.
 - ▶ Within and below the estuary - industrial service supply, marine and wetland habitats, estuarine and wildlife habitats, water contact and noncontact recreation, commercial and sport fishing, aquaculture, migration of aquatic

² Potable water sources means flows from drinking water storage, supply and distribution systems, including flows from system failures, pressure releases, system maintenance, well development, pump testing, fire hydrant flow testing; and flushing and dewatering of pipes, reservoirs, vaults, and wells.

**GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS**

**Order No. 97-045
CAG994001(3-C)**

organisms, fish migration, fish spawning, preservation of rare and endangered species, preservation of biological habitats, and shellfish harvesting.

- ▶ Coastal Zones (both nearshore and offshore) - industrial service supply, navigation, water contact and noncontact recreation, commercial and sport fishing, marine habitat, wildlife habitat, fish migration and spawning, shellfish harvesting, and rare, threatened, or endangered species habitat.
13. This Regional Board has implemented a Watershed Management Approach (WMA) to address water quality protection in the region. The objective is to provide a comprehensive and integrated strategy towards water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. It emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with resources available. This general permit and the accompanying Monitoring and Reporting Program aid in accomplishing the WMA. The Executive Officer may require the dischargers under this Order to participate in regional monitoring programs for the watershed where they are discharging.
 14. Effluent limitations and toxic and effluent standards established pursuant to §301, 302, 304, 306, and 307 of the Clean Water Act, as amended, are applicable to discharges under this Order.
 15. The requirements contained in this Order were established by considering, and are consistent with, all the water quality control policies, plans, and regulations mentioned above and, if they are met, will protect and maintain the beneficial uses of the receiving waters.
 16. The issuance of general waste discharge requirements for the above described discharges is exempt from the provisions of Chapter 3 (commencing with §21100, et. seq.), Division 13, Public Resources Code, pursuant to Water Code §13389. New discharges that will be authorized under this Order are not "new sources" as defined in 33 U.S.C., §306 and 40 CFR §122.2.

The Board has notified interested agencies, parties, and persons of its intent to issue general waste discharge requirements for groundwater discharges from construction and project dewatering to surface waters and has provided them with an opportunity to submit their written views and recommendations.

The Board, in a public hearing, heard and considered all comments pertaining to the discharges to be regulated under this Order and to the tentative requirements.

**GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS**

**Order No. 97-045
CAG994001(3-C)**

This Order shall serve as a general NPDES permit pursuant to §402 of the Clean Water Act, or amendments thereto, and shall take effect at the end of ten days from the date of its adoption provided the Regional Administrator, USEPA, has no objections.

IT IS HEREBY ORDERED that dischargers authorized under this Order and general permit, in order to meet the provisions contained in Division 7 of the California Water Code, and regulations adopted thereunder, and the provisions of the Federal Clean Water Act, and regulations and guidelines adopted thereunder, shall comply with the following:

A. ELIGIBILITY

1. Existing and future discharges of waste water to surface waters resulting from groundwater dewatering or seepage (including incidental collected stormwater); well construction, development, and/or testing; aquifer testing; and similar operations.
2. To be covered under this Order, discharges must meet the following criteria:
 - a. Pollutant concentrations in the discharge shall not exceed those in Attachment B nor cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;
 - b. The discharge shall not cause acute nor chronic toxicity in receiving waters; and;
 - c. The discharge shall not need waste treatment systems to meet requirements of this Order;
3. New discharges and existing discharges regulated under existing individual permits and Order No. 91-092 which meet the eligibility criteria may be regulated under this Order.
4. For the purpose of renewal of existing individual NPDES permits with this general permit, provided that all the conditions of this general permit are met, renewal is effective upon issuance of a notification by the Executive Officer and issuance of a new monitoring program.
5. When an individual NPDES permit with more specific requirements is issued to a discharger, the applicability of this Order to that discharger is automatically terminated on the effective date of the individual permit.

B. AUTHORIZATION

To be authorized to discharge under this Order, the discharger must submit a Report of Waste Discharge and an application for an NPDES permit (hereinafter Report of Waste Discharge) in accordance with the requirements of Part C of this Order. Upon receipt of the application, the Executive Officer shall determine the applicability of this Order to such a discharge. If the discharge is eligible, the Executive Officer shall notify the discharger that the discharge is authorized under the terms and conditions of this Order and prescribe an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the Executive Officer's written determination.

C. REPORT OF WASTE DISCHARGE

1. Deadline for Submission

- a. Renewal of permits of existing dischargers covered under individual permits that meet the eligibility criteria in Part A and have submitted Reports of Waste Discharge will consist of a letter of determination from the Executive Officer of coverage under this Order.
- b. Existing dischargers covered under Order No. 91-092 will be sent a Notice of Intent (NOI) form that must be completed and returned to the Regional Board within 45 days of receipt; otherwise permit coverage will be revoked. However, instead of an NOI, the Executive Officer may require existing dischargers to submit a new Report of Waste Discharge, may revise their monitoring and reporting requirements, and/or may require them to participate in a regional monitoring program.
- c. New dischargers shall file a complete application at least 30 days before commencement of the discharge.

2. Forms for Report of Waste Discharge

- a. Dischargers shall use the appropriate USEPA Forms or equivalent forms approved by the Regional Board or the Executive Officer.
- b. The Report of Waste Discharge shall include data indicating that the concentrations in the discharge shall not exceed those listed in Attachment B for Pollutants of Concern;
- c. The discharger, upon request, shall submit any additional information that the Executive Officer deems necessary to determine whether the

GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS

Order No. 97-045
CAG994001(3-C)

discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.

- d. The Report of Waste Discharge shall include a feasibility study on reuse and/or alternative disposal methods of the groundwater.
- e. The Report of Waste Discharge shall be accompanied by the first annual fee (if appropriate) in accordance with the *Annual Fee Schedule* for a discharge with a rating of 3-C. The check or money order shall be made payable to the "State Water Resources Control Board."

D. DISCHARGE PROHIBITIONS

1. The discharge of wastes other than those which meet eligibility requirements in Part A of this Order is prohibited unless the discharger obtains coverage under another general permit or an individual permit that regulates the discharge of such wastes.
2. The purposeful or knowing discharge of polychlorinated biphenyls (PCBs) is prohibited.
3. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

E. EFFLUENT LIMITATIONS

1. Discharge of an effluent in excess of the following limitations is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Discharge Limitations</u>	
		<u>Monthly Average</u>	<u>Daily Maximum</u>
Total Suspended Solids	mg/L	50	150
Turbidity	NTU	50	150
BOD ₅ 20°C	mg/L	20	30
Oil and Grease	mg/L	10	15
Settleable Solids	ml/L	0.1	0.3
Sulfides	mg/L	---	1.0
Detergents as methylene blue active substances (MBAS)	mg/L	---	0.5

**GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS**

**Order No. 97-045
CAG994001(3-C)**

2. The pH of the discharge shall at all times be within the range of 6.0 and 9.0.
3. The temperature of the discharge shall not exceed 100°F.
4. The discharge of an effluent with mineral and nitrogen constituents in excess of applicable limits given in Attachment A is prohibited. In the letter of determination, the Executive Officer shall indicate the watershed/stream reach limitations in Attachment A applicable to the particular discharge.
5. Pass-through or uncontrollable discharges of PCBs shall not exceed daily average concentrations of 14 ng/L into fresh waters or 30 ng/L into estuarine waters.
6. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test less than 70% survival.
7. The discharge shall meet effluent limitations and toxic and effluent standards established pursuant to §301, 302, 304, 306, and 307 of the Clean Water Act, and amendments thereto.

F. RECEIVING WATER LIMITATIONS

1. The discharge shall not cause the following to be present in receiving waters:
 - a. Toxic pollutants at concentrations that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health;
 - b. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;
 - c. Chemical substances in amounts that adversely affect any designated beneficial use;
 - d. Visible floating materials, including solids, liquids, foams, and scum;
 - e. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;

- f. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;
 - g. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;
 - h. Substances that result in increases of BOD₅20°C that adversely affect beneficial uses;
 - i. Fecal coliform concentrations which exceed a log mean of 200 per 100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10% of total samples during any 30-day period exceed 400 per 100 ml; and
 - j. Concentrations of toxic substances that are toxic to, or cause detrimental physiological responses in, human, animal, or aquatic life.
2. The discharge shall not cause the following to occur in the receiving waters:
- a. The dissolved oxygen to be depressed below:

WARM ³ designated waters	5 mg/L
COLD ³ designated waters	6 mg/L
COLD and SPWN ³ Designated waters	7 mg/L
 - b. The pH to be depressed below 6.5 or raised above 8.5, and the ambient pH levels to be changed from natural conditions in inland waters more than 0.5 units or in estuaries more than 0.2 units;
 - c. The temperature at any time or place and within any given 24-hour period to be altered by more than 5°F above natural temperature; but at no time be raised above 80°F for waters with a beneficial use of WARM (Warm Freshwater Habitat);
 - d. The turbidity to increase to the extent that such an increase causes nuisance or adversely affects beneficial uses; such increase shall not exceed 20% when the natural turbidity is over 50 NTU or 10% when the natural turbidity is 50 NTU or less;

³ Beneficial Uses: WARM - Warm Freshwater Habitat; COLD - Cold Freshwater Habitat; SPWN - Spawning, Reproduction, and/or Early Development.

**GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS**

**Order No. 97-045
CAG994001(3-C)**

- e. Residual chlorine in concentrations that persist and impairs beneficial uses; and,
 - f. Any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses or increase pesticide concentration in bottom sediments or aquatic life.
- 3. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.
 - 4. The discharge shall not degrade surface water communities and population including vertebrate, invertebrate, and plant species.
 - 5. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
 - 6. The discharge shall not cause problems associated with breeding of mosquitos, gnats, black flies, midges, or other pests.

G. PROVISIONS

- 1. The Executive Officer may require any discharger authorized under this Order to apply for and obtain an individual NPDES permit with more specific requirements. The Executive Officer may require any discharger authorized to discharge under this permit to apply for an individual permit only if the discharger has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual permit, the authority to discharge under this General Permit is no longer applicable.
- 2. Dischargers authorized under this Order shall maintain a copy of this Order at the waste disposal facility where it will be available at all times to operating personnel.
- 3. Prior to application, the discharger shall submit for Executive Officer's approval the list of chemicals and proprietary additives that may affect the discharge, including rates/quantities of application, compositions, characteristics, and material safety data sheets, if any.

**GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS**

**Order No. 97-045
CAG994001(3-C)**

4. Oil or oily materials, chemicals, refuse, or other materials that may cause pollution in storm water and/or urban runoff shall not be stored or deposited in areas where they may be picked up by rainfall/urban runoff and discharged to surface waters. Any spill of such materials shall be contained, removed and cleaned immediately.
5. This Order neither exempt the discharger from compliance with any other laws, regulations, or ordinances that may be applicable, nor legalize the waste disposal facility.
6. The discharger shall allow the Regional Board and its authorized representatives entry to the premises to inspect and undertake any activity to determine compliance with this Order, or as otherwise authorized by the California Water Code.
7. The discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
8. All applications, reports, or information submitted to the Regional Board shall be signed:
 - a. For corporations, by a principal executive officer at least of the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
 - b. For a partnership, by a general partner;
 - c. For a sole proprietorship, by the proprietor;
 - d. For a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
9. Pursuant to 40 CFR §122.61(b), coverage under this Order may be transferred in case of change of ownership of land or discharge facility provided the existing discharger notifies the Executive Officer at least 30 days before the proposed transfer date, and the notice includes a written agreement between the existing and new dischargers containing a specific date of transfer of coverage, responsibility for compliance with this Order, and liability between them.

**GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS**

**Order No. 97-045
CAG994001(3-C)**

10. Pursuant to 40 CFR § 122.62 and 122.63, this Order may be modified, revoked and reissued, or terminated for cause. Reasons for modification may include new information on the impact of discharges regulated under this Order become available, promulgation of new effluent standards and/or regulations, adoption of new policies and/or water quality objectives, and/or new judicial decisions affecting requirements of this Order,
11. Any discharge authorized under this Order may request to be excluded from coverage of this Order by applying for an individual permit.

H. MONITORING AND REPORTING REQUIREMENTS

1. The Executive Officer is hereby authorized to prescribe a Monitoring and Reporting Program for each authorized discharger. This program may include participation of the discharger in a regional monitoring program.
2. The discharger shall retain records of all monitoring information and data used to complete the Report of Waste Discharge and application for coverage under this Order for at least five years from the date of sampling, measurement, report, or application. The retention period shall be extended during any unresolved litigation regarding the discharge or when requested by the Executive Officer.
3. The discharger shall maintain all sampling, measurement and analytical results, including: the date, exact place, and time of sampling or measurement; individual(s) who did the sampling or measurement; the date(s) analyses were done; analysts' names; and analytical techniques or methods used.
4. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR § 136, unless other test procedures have been specified in this Order or by the Executive Officer.
5. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or other state agency authorized to undertake such certification.
6. The discharger shall calibrate and maintain all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.
7. For parameters/constituents where both monthly average and daily maximum limits are prescribed, but where monitoring frequency is less than four times a month, the following procedure shall apply:

If analysis of a sample yields a result greater than the monthly average limit for a parameter/constituent, the sampling frequency for that parameter/constituent shall increase to weekly within one week of receiving the laboratory result until at least four consecutive weekly samples are obtained and compliance with the monthly average has been demonstrated, and the discharger has submitted for Executive Officer approval a program that will ensure future compliance with the monthly average limit.

I. REPORTING REQUIREMENTS

1. The discharger shall file with the Regional Board (Attention: Technical Support Unit) technical reports on self-monitoring work conducted according to the Monitoring and Reporting Program specified by the Executive Officer and submit other reports as requested by the Regional Board.
2. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, constituents, and concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements.
3. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
4. Each monitoring report must contain an affirmation in writing that:

"All analyses were conducted at a laboratory certified for such analyses by _____ and in accordance with current USEPA procedures or as specified in this Monitoring Program."

5. Each report shall contain the following completed declaration:

"I declare under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system or those directly responsible for gathering the information, the information submitted, is, to the best of

Order No. 97-045
CAG994001(3-C)

Executed on the ____ day of _____ at _____

14

GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS

Order No. 97-045
CAG994001(3-C)

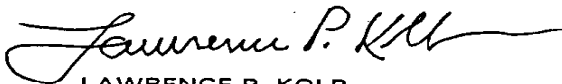
L. REAUTHORIZATION

Upon reissuance of a new general permit, dischargers authorized under this Order shall file a Notice of Intent or a new Report of Waste Discharge within 45 days of notification by the Executive Officer.

M. RESCISSION

Except for enforcement purposes, Order No. 91-092, adopted by this Regional Board on July 22, 1991, is hereby rescinded.

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on May 12, 1997.



LAWRENCE P. KOLB
Acting Executive Officer

GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS

Order No. 97-045
CAG994001(3-C)

ATTACHMENT A

Discharge of wastewater within a watershed/stream reach with constituent concentrations in excess of the following daily maximum limits is prohibited:

WATERSHED/STREAM REACH	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron* (mg/L)	Nitrogen** (mg/L)
1. <u>Miscellaneous Ventura Coastal Streams:</u>					
2. <u>Ventura River Watershed:</u>					
a. Above Camino Cielo Road	700	300	50	1.0	5
b. Between Camino Cielo Road and Casitas Vista Road	800	300	60	1.0	5
c. Between Casitas Vista Road and confluence with Weldon Canyon	1000	300	60	1.0	5
d. Between confluence with Weldon Canyon and Main Street	1500	500	300	1.5	10
e. Between Main St. and Ventura River Estuary					
3. <u>Santa Clara River Watershed:</u>					
a. Above Lang gaging station	500	100	50	0.5	5
b. Between Lang gaging station and Bouquet Canyon Road Bridge	800	150	100	1.0	5
c. Between Bouquet Canyon Road Bridge and West Pier Highway 99	1000	300	100	1.5	10
d. Between West Pier Highway 99 and Blue Cut gaging station	1000	400	100	1.5	5
e. Between Blue Cut gaging station and A Street, Fillmore	1300	600	100	1.5	5
f. Between A Street, Fillmore and Freeman Diversion "Dam" near Saticoy	1300	650	80	1.5	5
g. Between Freeman Diversion "Dam" near Saticoy and Highway 101 Bridge	1200	600	150	1.5	---
h. Between Highway 101 Bridge and Santa Clara River Estuary					
i. Santa Paula Creek above Santa Paula Water Works Diversion Dam	600	250	45	1.0	5
j. Sespe Creek above gaging station, 500 feet downstream from Little Sespe Creek	800	320	60	1.5	5
k. Piru Creek above gaging station below Santa Felicia Dam	800	400	60	1.0	5
4. <u>Callejas Creek Watershed:</u>					
a. Above Potrero Road	850	250	150	1.0	10
b. Below Potrero Road					
5. <u>Miscellaneous Los Angeles County Coastal Streams:</u>					
a. Malibu Creek Watershed:	2000	500	500	2.0	10
b. Ballona Creek Watershed:					
6. <u>Dominguez Channel Watershed:</u>					
7. <u>Los Angeles River Watershed:</u>					
a. Los Angeles River and Tributaries - upstream of Sepulveda Flood Control Basin	950	300	150	---	8
b. Los Angeles River - between Sepulveda Flood Control Basin and Figueroa Street. Includes Burbank Western Channel only.	950	300	190	---	8
c. Other tributaries to Los Angeles River - between Sepulveda Flood Control Basin and Figueroa Street	950	300	150	---	8
d. Los Angeles River - between Figueroa Street and L. A. River Estuary (Willow Street). Includes Rio Hondo below Santa Ana Freeway	1500	350	190	---	8
e. Other tributaries to Los Angeles River - between Figueroa Street and Los Angeles River Estuary. Includes Arroyo Seco downstream of spreading grounds.	1550	350	150	---	8

GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS

Order No. 97-045
CAG994001(3-C)

ATTACHMENT A
(Continued)

WATERSHED/STREAM REACH	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron* (mg/L)	Nitrogen** (mg/L)
7. <u>Los Angeles River Watershed (continued):</u>					
f. Rio Hondo - between Whittier Narrows Flood Control Basin and Santa Ana Freeway	750	300	180	---	8
g. Rio Hondo - upstream of Whittier Narrows Flood Control Basin	750	300	150	---	8
h. Santa Anita Creek above Santa Anita spreading grounds	250	30	10	---	---
i. Eaton Canyon Creek above Eaton Dam	250	30	10	---	---
j. Arroyo Seco above spreading grounds	300	40	15	---	---
k. Big Tujunga Creek above Hansen Dam	350	50	20	---	---
l. Pacoima Wash above Pacoima spreading grounds	250	30	10	---	---
8. <u>San Gabriel River Watershed:</u>					
a. San Gabriel River above Morris Dam	250	30	10	0.6	2
b. San Gabriel River between Morris Dam and Ramona Blvd.	450	100	100	0.5	8
c. San Gabriel River and tributaries - between Ramona Blvd. and Valley Blvd.	750	300	150	1.0	8
d. San Gabriel River - between Valley Blvd. and Firestone Blvd. Includes Whittier Narrows Flood Control Basin and San Jose Creek - downstream of 71 Freeway only.	750	300	180	1.0	8
e. San Jose Creek and tributaries - upstream of 71 Freeway	750	300	150	1.0	8
f. San Gabriel River - between Firestone Blvd. and San Gabriel River Estuary (downstream from Willow Street). Includes Coyote Creek.		no waterbody specific limits			
g. All other minor San Gabriel Mountain streams tributary to San Gabriel Valley	300	40	15	---	---
9. <u>Los Angeles Harbor/ Long Beach Harbor Watershed</u>		no waterbody specific limits			
10. <u>Santa Ana River Watershed</u>					
a. San Antonio Creek***	225	25	---	---	---
b. Chino Creek***	---	---	---	---	---
11. <u>Island Watercourses:</u>					
a. Anacapa Island		no waterbody specific limits			
b. San Nicolas Island		no waterbody specific limits			
c. Santa Barbara island		no waterbody specific limits			
d. Santa Catalina Island		no waterbody specific limits			
e. San Clemente Island		no waterbody specific limits			

* Where naturally occurring boron results in concentrations higher than the stated limit, a site-specific limit may be determined on a case-by-case basis.

** Nitrate-nitrogen plus nitrite-nitrogen (NO₃-N + NO₂-N). The lack of adequate nitrogen data for all streams precluded the establishment of numerical limits for all streams.

*** These watercourses are primarily located in the Santa Ana Region. The water quality objectives for these streams have been established by the Santa Ana Regional Board. Dashed lines indicate that numerical objectives have not been established, however, narrative objectives shall apply. Refer to the Santa Ana Region Basin Plan for more details.

GROUNDWATER DISCHARGES FROM CONSTRUCTION
AND PROJECT DEWATERING TO SURFACE WATERS

Order No. 97-045
CAG994001(3-C)

ATTACHMENT B

<u>Pollutants of Concern</u>	<u>Units</u>	<u>Daily Maximum</u>
Phenols	mg/L	1.0
Phenolic Compounds (chlorinated)	µg/L	1.0
Benzene	µg/L	1.0
Toluene	µg/L	150
Ethylbenzene	µg/L	700
Xylene	µg/L	1750
Ethylene Dibromide	µg/L	0.05
Carbon Tetrachloride	µg/L	0.5
Tetrachloroethylene	µg/L	5.0
Trichloroethylene	µg/L	5.0
1,4-dichlorobenzene	µg/L	5.0
1,1-dichloroethane	µg/L	5.0
1,2-dichloroethane	µg/L	0.5
1,1-dichloroethylene	µg/L	6.0
Vinyl Chloride	µg/L	0.5
Arsenic	µg/L	50
Cadmium	µg/L	5
Chromium	µg/L	50
Copper	µg/L	1000
Lead	µg/L	50
Mercury	µg/L	2
Selenium	µg/L	10
Silver	µg/L	50
Total Petroleum Hydrocarbons	µg/L	100
Methyl Tertiary Butyl Ether (MTBE)	µg/L	35

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 5-00-175

NPDES NO. CAG995001

WASTE DISCHARGE REQUIREMENTS
GENERAL ORDER FOR
DEWATERING AND OTHER LOW THREAT DISCHARGES
TO SURFACE WATERS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Miscellaneous public and private businesses (hereafter Discharger) often need to discharge clean or relatively pollutant-free wastewater that poses little or no threat to water quality. This General Permit covers the discharge of certain categories of these discharges to waters of the United States.
2. The following discharges may be covered by this permit provided they do not contain significant quantities of pollutants and they are either (1) four months or less in duration, or (2) the average dry weather discharge does not exceed 0.25 mgd:
 - a. Well development water
 - b. Construction dewatering
 - c. Pump/well testing
 - d. Pipeline/tank pressure testing
 - e. Pipeline/tank flushing or dewatering
 - f. Condensate discharges
 - g. Water supply system discharges
 - h. Miscellaneous dewatering/low threat discharges

These wastewaters may be produced and treated on a continuous or batch basis.

3. Individual waste discharge requirements are presently adopted for these discharges, necessitating approximately four or more months of lead time for the project. Adoption of this general permit will significantly reduce the time spent on dewatering and other low water quality threat projects.
4. Water quality characteristics most likely of concern for these discharges include settleable material, suspended material, color, turbidity and chlorine. Dischargers should hire professional

NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

2

engineers to assure pollutants will be properly treated prior to discharge if there is any doubt about the ability for continuous compliance with requirements.

5. This permit is intended to regulate dewatering and other low water quality threat discharges identified in Finding No. 2. It is not intended for ground water cleanup projects or to regulate discharges that contain acute or chronic toxicity, chemical or organic constituents, bacteria, herbicides, pesticides, oil and grease, radioactivity, salinity or temperature that may adversely impact beneficial uses or exceed any water quality objective or standard.

There are many sites of ground water contamination in the Central Valley. The contamination may have been caused by many factors including industrial activity, underground leaking tanks and farming practices. This permit is not intended for use on groundwater where such contamination exists even if the project and/or proponent has no connection with the contamination.

6. Water suppliers may have numerous intentional and unintentional releases of fresh water to surface waters and surface water drainage courses due to many factors including system failures, pressure releases, and pipeline/tank flushing and dewatering. For the purpose of this Order these multiple discharges shall be considered a project. This General Permit may serve as waste discharge requirements for such public and private water suppliers including Irrigation Districts, Water Districts and Water Agencies. A Pollution Prevention and Monitoring and Reporting Plan may be developed by the Discharger as established in Attachment B for approval by the Regional Board Executive Officer. Compliance with this General Permit requires removal of chlorine and other constituents normally found in these discharges to provide protection of downstream beneficial uses including fish and other aquatic life.
7. The Discharger agrees immediately to stop any discharge authorized by these requirements in the event there is a violation, or threatened violation, of this permit or if the Regional Board Executive Officer so orders. The Discharger shall notify the Board as soon as is reasonably possible by telephone, with a written confirmation within two weeks, when a violation of this Order is known to exist. The discharge may not be resumed until authorized by the Executive Officer.
8. The Board may prescribe individual waste discharge requirements for any discharge. If individual waste discharge requirements are issued for a discharge, the applicability of this General Permit to the discharge is immediately terminated.
9. This Order shall apply to the individuals, municipalities or companies discharging and to individual property owners and/or operators (collectively Discharger) which have submitted a Notice of Intent (NOI) and appropriate fee for coverage under this General Order. Dischargers that meet the standards of this Order and who submit a completed NOI and appropriate fee are authorized to discharge under the terms and conditions of this General Permit unless individual waste discharge requirements are issued or the discharge is prohibited.

NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

3

10. A separate NOI and filing fee must be filed with the Regional Board for each system owner or project to be eligible for coverage under this Order. The NOI form (Attachment A) must be completed in order to obtain coverage under this permit.
11. The U.S. Environmental Protection Agency (EPA) and the Board generally classify this type of discharge as a minor discharge. If an individual discharge is classified as a major discharge, it will not be covered by this General Permit.
12. This Order does not preempt or supersede the authority of the State Department of Fish and Game or local agencies to prohibit, restrict, or control the discharge of wastewater subject to their control.
13. On 17 April 1997, the State Water Resources Control Board adopted Waste Discharge Requirements, Order No. 97-03-DWQ, NPDES General Permit No. CAS000001 for the regulation of storm water discharges associated with industrial activities. Order No. 97-03-DWQ, Special Condition D-1, authorizes non-storm water discharges including fire hydrant flushing, potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems, drinking fountain water, atmospheric condensates including refrigeration, air conditioning, and compressor condensate, irrigation drainage, landscape watering, springs, groundwater, foundation or footage drainage, sea water infiltration and discharges from fire fighting activities. Order No. 97-03-DWQ, Special Condition No. D-1-c, allows the Regional Board to establish additional monitoring and reporting requirements for these storm water discharges. The Board finds that the additional monitoring and reporting requirements and discharge limitations contained in this Order are necessary to assure compliance with water quality objectives and standards and that coverage under this Order is therefore necessary for the following discharges listed in Order No. 97-03-DWQ, Special Condition No. D-1: fire hydrant flushing; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems, atmospheric condensates including refrigeration, air conditioning and compressor condensate, and groundwater dewatering systems.

On 19 August 1999, the State Water Resources Control Board adopted Waste Discharge Requirements, Order No. 99-08-DWQ, NPDES General Permit No. CAS000002 for the regulation of storm water discharges associated with construction activities. Order No. 99-08-DWQ; Special Provision No. C. 3, allows for the limited discharge of non-stormwater discharges where they do not cause or contribute to a violation of any water quality standard. Receiving Water Limitations in Order No. 99-08-DWQ require compliance with all applicable water quality standards including those contained in the Basin Plan. The Board finds that Order No. 99-08-DWQ provides adequate water quality protection and compliance monitoring. Non-stormwater discharges related to construction activities may continue to be regulated under Order No. 99-08-DWQ while construction activities continue.

14. The Board has adopted a Water Quality Control Plan, 4th Edition, for the Sacramento/San Joaquin River Basins (hereafter Basin Plan). The Board has also adopted a Water Quality Control Plan for the Tulare Lake Basin (5D). The Basin Plans designate beneficial uses, establishes water quality

NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

4

objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. This Order implements the Plans.

15. EPA adopted the National Toxics Rule on 5 February 1993 and the California Toxics Rule (CTR) on 18 May 2000. The State Board has adopted an Implementation Plan for the CTR. The Rules contains water quality standards applicable to this discharge. Federal regulations also require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard, including the Rule. The Board finds that the discharges prescribed by this Order do not have a reasonable potential to cause or contribute to an in-stream excursion above a water quality objective. If information becomes available that shows there is a reasonable potential for the discharge to exceed any water quality objective or standard the discharge shall be immediately terminated. The discharge may not be resumed until authorized by the Executive Officer, individual waste discharge requirements are issued or the discharge may be prohibited.
16. The designated beneficial uses of ground water within the Central Valley Region are municipal, industrial, and agricultural supply, except where lesser beneficial uses are designated in the Water Quality Control Plans.
17. The beneficial uses of surface waters, as identified in Table II-1 of the Basin Plan, are municipal and domestic supply, agricultural irrigation, agricultural stock watering, industrial process water supply, industrial service supply, hydro power generation, body contact water recreation, canoeing and rafting, other non-body contact water recreation, warm freshwater aquatic habitat, cold freshwater aquatic habitat, warm fish migration habitat, cold fish migration habitat, warm spawning habitat, cold spawning habitat, wildlife habitat, and navigation. The beneficial uses of water bodys identified in the Basin Plan downstream of the discharge, as identified in Table II-1, shall apply. If a water body into which wastewater is discharged is not specifically identified in the Basin Plan, the Plan states "The beneficial uses of any specifically identified water body generally apply to its tributary streams." The Board finds that, for purposes of this Order where specific water bodies are not identified, the beneficial uses identified in the Basin Plan for the downstream waters are applicable to water body into which discharge occurs.
18. The Water Quality Control Plans encourage the disposal of wastewater on land where practicable, and require applicants for discharge permits to evaluate land disposal as a first alternative. Where studies show that year-round land disposal is not practicable, the Discharger must evaluate, and utilize if feasible, dry season land disposal as an alternative.
19. The Board has considered antidegradation pursuant to 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16 and finds that the subject discharges are consistent with those provisions. There will not be degradation if the requirements of the permit are met. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant. This Order provides for an increase in the volume and mass of pollutants discharged. The increase will not cause a violation of water quality objectives. The increase in the discharge allows wastewater utility service necessary to accommodate

NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

5

housing and economic expansion in the area, and is considered to be a benefit to the people of the State. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. If the discharge is not consistent with these policies it will not be covered under this Order.

20. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 304, and 307 of the Clean Water Act (CWA) and amendments thereto are applicable to the Discharge.
21. These discharges are currently governed by Waste Discharge Requirements, Order No. 93-230, adopted by the Board on 3 December 1993.
22. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code.
23. The Board has notified interested agencies and persons of its intent to prescribe waste discharge requirements in the General Order and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
24. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
25. This Order shall serve as an NPDES permit pursuant to Section 402 of the Clean Water Act, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that Order No. 93-230 is hereby rescinded and all Dischargers that file a NOI and appropriate filing fee indicating their intention to be regulated under provisions of this General Order, and all heirs, successors, or assigns, in order to meet the provisions contained in Division 7 of the California Water Code and Regulations adopted thereunder, and the provisions of the Clean Water Act and Regulations and Guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. Discharge of wastewater other than that described in the Findings is prohibited. The wastewater shall be free of all other pollutants. The wastewater shall not cause or threaten to cause pollution, contamination, or nuisance.
2. Discharge of contaminated ground water is prohibited.
3. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by the attached Standard Provisions and Reporting Requirements A. 13.

NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

6

B. Effluent Limitations:

1. Effluent shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>
BOD'	mg/l	10	15	30
Total Suspended Solids	mg/l	10	15	30
Settleable Solids	ml/l			0.1

' 5-day, 20°C biochemical oxygen demand (BOD)

2. Effluent discharged into a surface water body shall not contain chlorine in excess of 0.02 mg/l (instantaneous maximum). If the wastewater contains chlorine in excess of 0.02 mg/l, the Discharger shall certify that chlorine will be reduced to a maximum of 0.02 mg/l before wastes enter surface water.
3. Effluent discharged into a surface water body shall not have a pH less than 6.5 nor greater than 8.5.
4. The average dry weather (May through October) discharge flow shall not exceed 0.25 MGD unless the discharge is four months or less in duration in which case there is no flow limit.

C. Solids Disposal:

1. Collected screenings and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with Chapter 15, Division 3, Title 23, of the CCR and approved by the Executive Officer.
2. Any proposed change in solids use or disposal practice shall be reported to the Executive Officer and EPA Regional Administrator at least 90 days in advance of the change.

D. Receiving Water Limitations:

Receiving Water Limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit. The discharge shall not cause the following in the receiving water:

1. Concentrations of dissolved oxygen to fall below 7.0 mg/l.
2. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.

NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

7

3. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.
4. Aesthetically undesirable discoloration.
5. Fungi, slimes, or other objectionable growths.
6. The turbidity to increase as follows:
 - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
 - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
 - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
 - d. More than 10 percent where natural turbidity is greater than 100 NTUs.
7. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units.
8. Deposition of material that causes nuisance or adversely affects beneficial uses.
9. The normal ambient temperature to be altered more than 5°F.
10. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.
11. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
12. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
13. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
14. Violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board pursuant to the CWA and regulations adopted thereunder.

E. Provisions:

1. Dischargers currently covered by Order No. 93-230 are automatically granted coverage under this Order for a period of 90-days following adoption, during which time the Discharger may file a Notice of Intent (NOI) for coverage under this Order. Coverage under this Order is terminated after the 90-day period unless a new NOI has been submitted. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revocation of authorization to discharge under this Order.
2. Individual owners of the real property at which the discharge will occur are ultimately responsible for ensuring compliance with these requirements. Individuals and companies responsible for site operations retain primary responsibility for compliance with these requirements, including day-to-day operations and monitoring. Enforcement actions will be taken against landowners in the event that enforcement actions against site operators are ineffective or would be futile, or that enforcement is necessary to protect public health or the environment.
3. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating and site management personnel shall be familiar with its contents.
4. Water suppliers with numerous discharge points may elect to prepare and implement a Pollution Prevention and Monitoring and Reporting Plan (PPMRP) rather than identify and monitor each discharge as required in the NOI (Attachment A) and Monitoring and Reporting Program (Attachment C). The PPMRP must be submitted with the NOI prior to discharge and is subject to approval by the Regional Board Executive Officer. The PPMRP shall include as a minimum the elements identified in Attachment B.
5. The Discharger shall use the best practicable cost-effective control technique currently available to limit mineralization to no more than a reasonable increment.
6. The Discharger shall comply with all the applicable items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)", dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provision(s)."
7. The Discharger shall comply with the attached Monitoring and Reporting Program contained in Attachment C of this Order, and any revisions thereto, as ordered by the Executive Officer.

When requested by EPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger Self Monitoring Reports.

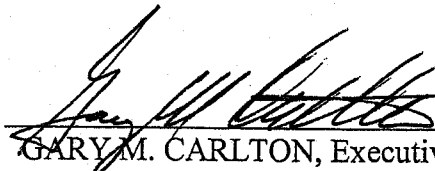
NPDES WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. 5-00-175
LOW THREAT AND DEWATERING WASTEWATER DISCHARGES
TO SURFACE WATERS

9

8. This Order expires on **1 June 2005**.
9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name, address, and telephone number of the persons responsible for contact with the Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, **GARY M. CARLTON**, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 16 June 2000.



GARY M. CARLTON, Executive Officer

Attachments

RPM:lm

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF
GENERAL ORDER NO. 5-00-175
FOR
DEWATERING AND OTHER LOW
THREAT DISCHARGES TO SURFACE WATERS

I. CONTRACTOR/OPERATOR -If additional owners/operators are involved, provide the information in a supplementary letter.

Name			
Mailing Address			
City	State	Zip	Phone
Contact Person	Contractor _____ Operator _____ Contractor/Operator _____		

II. PROPERTY OWNER -If additional property owners are involved, provide the information in a supplementary letter.

Name			
Mailing Address			
City	State	Zip	Phone
Contact Person			

III. WATER SUPPLIERS (If applicable)

Name			
Mailing Address			
City	State	Zip	Phone
Contact Person			

IV. BILLING ADDRESS:

Name			
Mailing Address			
City	State	Zip	Phone
Contact Person			

V. DISCHARGE LOCATION:

-If more than one discharge is proposed, provide the information in a supplementary letter.

Street (including address, if any) _____

City/County _____

Nearest Cross Street(s) _____

Township/Range/Section T _____, R _____, Section _____, MDB&M

Attach a map of at least 1:24000 (1" = 2000') showing the discharge site. (eg. USGS 7.5' topographic map.)

The map should also show the treatment system, discharge point and surface waters. Wells and residences within 1,500 feet shall be identified.

VI. DISCHARGE INFORMATION

Please Identify type of discharge

___ Well development water

___ Pipeline/tank pressure testing

___ Construction dewatering

___ Pipeline/tank flushing or dewatering

___ Pump/well Testing

___ Condensate

___ Water Supply System

___ Other (Please describe)

Start Date _____ Stop Date _____ (estimate) Discharge Rate _____ MGD.

Is discharge continuous or intermittent? _____

VII. LAND DISPOSAL/RECLAMATION

Board policies dictate that wastewater discharges must be contained on land or beneficially re-used if practical. You must evaluate and rule out this alternative prior to any discharge to surface water under this Order.

Is land reclamation feasible? Yes ___ No ___

If no, explain. IF yes, you should contact the Regional Board. This Order does not apply if there is no discharge to surface waters.

VIII. TREATMENT SYSTEM

Please Identify

_____ None (describe why a treatment system is not necessary) _____ Pond
_____ Other (please describe) _____

Provide a schematic drawing of the proposed treatment system.

IX. RECEIVING WATER INFORMATION

A. Name of closest receiving water.

B. Receiving water is tributary to (name major downstream water body)

X. PRIMARY POLLUTANTS/PARAMETERS LIKELY TO BE IN THE DISCHARGE

Please Identify

_____ Settleable material

_____ Color

_____ Suspended material

_____ Turbidity

_____ PH

_____ Other (please describe)

_____ Chlorine

_____ Construction material pollutants

_____ Total dissolved solids

_____ Metals

_____ Trace organic compounds

Have samples been collected? _____ Yes (attach results) _____ No

Are additives in the discharge? _____ Yes (describe and quantify) _____ No

If yes, please specify the additive and/or sample result _____

XI. ABILITY TO COMPLY

Do you believe the discharge may have acute or chronic toxicity, chemical or organic constituents, bacteria, pesticides, oil and grease, radioactivity, salinity or temperature that may adversely impact beneficial uses of the receiving water? _____ Yes _____ No

If your answer is yes you must contact a Professional Engineer. A specific individual permit may be required from the Regional Board rather than this General Order.

XII. PROFESSIONAL ENGINEER

If a Professional Engineer has helped you evaluate the proposed discharge for compliance with this General Order, please identify.

Name

Mailing Address

City

State

Zip

Phone

Signature

Certificate No.

Date

XIII. FEES

A check payable to the State Water Resources Control Board in the amount of \$400 (or appropriate current fee) must be submitted.

XIV. CERTIFICATION

I hereby certify under penalty of perjury that the information provided in this application and in any attachments is true and accurate to the best of my knowledge. By signing this NOI, I agree to closely monitor and stop the discharge if there is any violation of the General Permit. The Regional Board will be immediately notified of any violation, or threatened violation, of the General Permit.

Signature of Contractor/Operator

Signature of Property Owner

Print or Type Name

Print or Type Name

Title

Date

Title

Date

ATTACHMENT B

WATER SUPPLIERS' POLLUTION PREVENTION AND MONITORING AND REPORTING PLAN ORDER NO. 5-00-175

Only water suppliers that propose to have numerous discharge points covered by this General Permit are required to develop the Pollution Prevention and Monitoring and Reporting Plan (PPMRP) identified in this Attachment. These dischargers are not required to complete sections of the NOI concerning discharge type and location. All other sections of the NOI and PPMRP must be submitted prior to discharge.

The PPMRP shall include:

I. Pollution Prevention Plan

- A. Provide a general description of the distribution system and potential discharge locations. Identify pollutant types, flow rate ranges and receiving waters.
- B. Identify treatment systems, spill contingency plans, operation and maintenance procedures, inspections, equipment, supplies, training, erosion control, etc., to assure continuous compliance with requirements.

II. Monitoring and Reporting Program

- A. Develop a representative sampling and analysis program. Dischargers are not required to sample all discharges if reasonable assurance is provided that the discharges will comply with requirements. Provide rationale for selection of the effluent and receiving water monitoring plan. Describe sampling methods, locations and frequency of monitoring. Inspection plans and visual observations for discoloration and stream bottom deposits etc. must be included.

III. Records

Records of all monitoring information and copies of all reports required by this General Permit shall be retained for a period of at least five years from the date of the sample, observation, measurement, or report.

These records shall include:

- 1. The date, place, and time of site inspections, sampling, visual observation, and/or measurement;

ATTACHMENT B

WATER SUPPLIERS'

POLLUTION PREVENTION AND MONITORING
AND REPORTING PLAN

2. The individual(s) who performed the site inspections, sampling, visual observations, and/or measurements;
3. Flow measurements or estimates (if required);
4. The date and time of analyses;
5. The laboratory or staff who performed the analyses.

IV. Reporting

Quarterly monitoring results shall be submitted to the Regional Board by the **first day of the second month** following each calendar quarter. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements.

If the Discharger monitors any pollutant more frequently than is proposed, the results of such monitoring shall be reported.

All reports submitted in response to this Order shall comply with signatory

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 5-00-175

GENERAL ORDER

FOR

DEWATERING AND OTHER LOW THREAT
DISCHARGES TO SURFACE WATERS

DISCHARGES LONGER THAN FOUR MONTHS IN DURATION

The following effluent monitoring program is required if the discharge duration is longer than four months and the average dry weather discharge does not exceed 0.25 MGD. Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples should be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Effluent monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
20°C BOD ₅	mg/l	Grab	Quarterly
Suspended Solids	mg/l	Grab	Quarterly
Settleable Solids	ml/l	Grab	Quarterly
Flow	mgd	Meter	Continuous
Temperature	°F	Grab	Monthly
pH	pH Units	Grab	Monthly

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

DISCHARGES FOUR MONTHS OR LESS IN DURATION

The following effluent monitoring program is required if the discharge is four months or less in duration. Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples should be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Effluent monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
20°C BOD ₅	mg/l	Grab	Twice monthly ¹
Suspended Solids	mg/l	Grab	Twice monthly ¹
Settleable Solids	ml/l	Grab	Twice monthly ¹
pH	pH Units	Grab	Twice monthly ¹

¹ The first sample shall be collected at the start of discharge.

MONITORING AND REPORTING PROGRAM ORDER NO. 5-00-175
ATTACHMENT C
GENERAL ORDER FOR WASTEWATER
DEWATERING DISCHARGES
TO SURFACE WATERS

2

A post-discharge report shall be submitted after each discharge. The report shall include:

1. Any variations from the Notice of Intent.
2. Did the discharge result in any discoloration or turbidity in the receiving water? Please explain upstream and downstream conditions identified in the following Receiving Water Monitoring Section.
3. Identify any violations of the General Order. Please explain.
4. Please explain any corrective actions taken to comply with the General Order.
5. Did the discharge cause any complaints?

RECEIVING WATER MONITORING

Receiving water monitoring shall be twice weekly for discharges where the duration is four months or less and monthly if the discharge period is greater than four months and include at least the following:

<u>Station</u>	<u>Description</u>
R-1	50 feet upstream from the point of discharge
R-2	50 feet downstream from the point of discharge

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>
Temperature	°F	Grab
pH	pH Units	Grab
Electrical Conductivity	µmhos/cm	Grab
Dissolved Oxygen	mg/l	Grab

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2. Attention shall be given to the presence or absence of:

- | | |
|---------------------------------|--|
| a. Floating or suspended matter | e. Visible films, sheens or coatings |
| b. Discoloration | f. Fungi, slimes, or objectionable growths |
| c. Bottom deposits | g. Potential nuisance conditions |
| d. Aquatic life | |

Notes on receiving water conditions shall be summarized in the monitoring report.

MONITORING AND REPORTING PROGRAM ORDER NO. 5-00-175
GENERAL ORDER FOR WASTEWATER
DEWATERING DISCHARGES
TO SURFACE WATERS

3

REPORTING

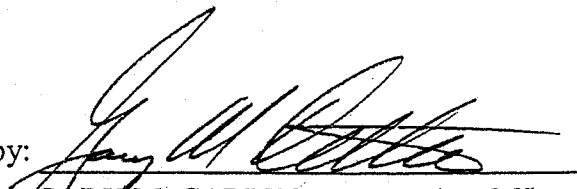
Quarterly monitoring results shall be submitted to the Regional Board by the **first day of the second month** following each calendar quarter. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of discharge.

Ordered by:


GARY M. CARLTON, Executive Officer

16 June 2000

(Date)

RPM:lm

INFORMATION SHEET ORDER NO. 5-00-175
GENERAL ORDER FOR DEWATERING AND OTHER LOW
THREAT DISCHARGES TO SURFACE WATERS

This Order serves as a General NPDES Permit for the discharge of low water quality threat wastewater discharges to surface waters. This permit does not apply unless the discharge qualifies as low threat to water quality. The discharge shall either be: (1) Short duration (four months or less) or (2) Low flow (average dry weather discharge does not exceed 0.25 MGD) to qualify as low volume for the purpose of this permit. The following types of discharges may be covered by this permit: (1) Well development water, (2) Construction dewatering, (3) Pump/well testing, (4) Pipeline/tank pressure testing, (5) Pipeline/tank flushing or dewatering, (6) Condensate, (7) Water supply system and (8) Miscellaneous dewatering and low threat discharges. The treatment and discharge of water with acute or chronic toxicity, chemicals or organic constituents, bacteria, herbicides, pesticides, oil and grease, radioactivity, salinity or temperature that may adversely threaten beneficial uses are not covered by this permit. Also not covered by this Order are: 1) Wastewaters discharged to municipal wastewater collection systems, and 2) Discharges to ponds, infiltration basins, spray disposal areas, subsurface infiltration, or other methods not involving discharge to surface waters and surface water drainage courses, and discharges of contaminated ground water, treated or untreated.

Water suppliers may have numerous intentional and unintentional releases of fresh water to surface waters and surface water drainage courses due to many factors including; system failures, pressure releases, and pipeline/tank flushing and dewatering. This General Permit may serve as waste discharge requirements for such public and private water suppliers including Irrigation Districts, Water Districts and Water Agencies. Discharges from these water systems may not be possible to specifically identify and monitor in every situation. In such cases a Pollution Prevention and Monitoring and Reporting Plan may be developed by the Discharger as established in Attachment B for approval by the Regional Board Executive Officer. Compliance with this General Permit requires removal of chlorine and other constituents normally found in these discharges to provide protection of downstream beneficial uses including fish and other aquatic life. Chlorine is a toxic constituent. An effluent limitation for chlorine has been included in the Order to assure compliance with the Basin Plan's narrative standard prohibiting the discharge of toxic constituents in toxic concentrations.

The water quality characteristics most likely of concern for these discharges include settleable matter, suspended material, color and turbidity. The proposed effluent and receiving water limits are based on Basin Plan objectives and similar requirements issued by the Board. If there is any doubt about the ability for continuous compliance with requirements, the Discharger shall contact Professional Engineers to assure pollutants will be properly treated prior to discharge. As explained in the NOI, dischargers have responsibility to immediately stop the discharge and notify the Regional Board of any violation, or threatened violation, of the permit.

Regional Board policies dictate that wastewater discharges must be contained on land or beneficially re-used if practicable. Dischargers must evaluate and rule out this alternative prior to any discharge under this permit. If land reclamation is feasible this permit does not apply.

Regional Board staff typically do not evaluate compliance with requirements prior to discharge. The Discharger makes that decision and whether or not to seek professional advice when they submit the

INFORMATION SHEET, ORDER NO. 5-00-175
GENERAL ORDER FOR DEWATERING AND OTHER LOW
THREAT DISCHARGES TO SURFACE WATERS

-2-

Notice of Intent (NOI). Dischargers who submit an NOI and appropriate fee are authorized to discharge under the terms and conditions of this General Order. Violations may result in enforcement action, including Regional Board or court Orders requiring corrective actions or imposing civil monetary liability, or in revision or rescission of this Order.

The following information and policy statements are provided to help establish consistency in application of this General Permit: 1) Regional Board staff should send completed copies of each NOI to appropriate Regional offices of the Department of Fish and Game, 2) One permit is required for each water system owner even if there will be multiple discharges. Fire departments frequently test hydrants by flushing them. They may be covered under the water system owner's permit if requested in the NOI, 3) Any pollutants the discharger flushes into the receiving water may not cause a violation of requirements. This needs to be considered when completing various sections of the NOI including ability to comply, pollutants in the discharge and treatment system, including chlorine. We generally consider the discharge to be the point where "wastewater" enters the receiving water. Our concern is protection of the receiving water.

Dischargers currently covered by Order No. 93-230 are automatically granted coverage under this Order for a period of 90-days following adoption, during which time the Discharger may file a Notice of Intent (NOI) for coverage under this Order. Coverage under this Order is terminated after the 90-day period unless a new NOI has been submitted.

RPM/16 June 2000

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

ORDER NO. 6-98-36

NPDES NO. CAG996001

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES)
GENERAL PERMIT FOR
LIMITED THREAT DISCHARGES TO SURFACE WATERS**

The California Regional Water Quality Control Board, Lahontan Region, (hereafter Regional Board) finds that:

1. Reason for Permit

Public and private businesses (hereafter Discharger) often need to discharge clean or relatively pollutant-free water that poses little or no threat to water quality. This General Permit covers the discharge of certain categories of these discharges to waters of the United States.

Individual NPDES permits are presently adopted for these discharges, necessitating approximately four or more months of lead time for the project. Adoption of this General Permit will significantly reduce the time spent permitting limited threat projects.

2. Coverage Under This Permit

To be authorized by this General Permit, limited threat discharges must meet the following criteria:

- A. The discharge is in compliance with all applicable water quality objectives including prohibitions of discharge (see Chapters 3, 4.1, and 5.2 of the Water Quality Control Plan for the Lahontan Region).
- B. The discharge does not include water added for the purpose of diluting pollutant concentrations.
- C. The discharge will not cause or contribute to degradation of water quality or impair beneficial uses of receiving waters.

3. Discharges Covered Under This Permit

Only the following discharges will be covered by this permit provided they meet the criteria specified herein:

- A. Pump/well testing
- B. Dewatering

This permit is intended to regulate the limited threat discharges identified above. It is not intended for ground water cleanup projects or to regulate discharges that contain chemical or organic constituents, bacteria, herbicides, pesticides, oil and grease, radioactivity, salinity or temperature that may adversely impact beneficial uses or which cause acute or chronic toxicity in aquatic life.

4. Water Quality Characteristics

Water quality characteristics most likely of concern for these discharges include nutrients, dissolved minerals, settleable material, suspended material and turbidity. Testing will be required throughout the period of discharge to ensure continuous compliance with requirements.

5. Obtaining Permit Authorization

To obtain authorization for discharges under this permit, the owner or developer responsible for the construction activity must submit a Notice of Intent (NOI) with an appropriate fee, and a report of waste discharge that contains pre-discharge water quality analysis and a discussion of Best Management Practices (BMP) to be employed prior to the discharge. BMPs will include disposal practices for development water, energy dissipation, etc. Regional Board staff will review water quality data to ensure that receiving water limits are not exceeded. The owner or developer shall be authorized to discharge under the terms and conditions of this permit only after receiving a written Notice of Applicability (NOA) from the Regional Board Executive Officer.

The Discharger agrees immediately to stop any discharge authorized by these requirements in the event there is a violation of this permit or if the Regional Board Executive Officer so orders. The discharge may not be resumed until authorized by the Executive Officer.

6. Individual Waste Discharge Requirements

The Regional Board may prescribe individual waste discharge requirements for any discharge. If individual waste discharge requirements are issued for a discharge, the applicability of this General Permit to the discharge is immediately terminated.

7. Minor Discharges

The U.S. Environmental Protection Agency (EPA) and the Regional Board generally classify this type of discharge as a minor discharge. If an individual discharge is classified as a major discharge, it will not be covered by this General Permit.

8. Local Agency Authority

This Order does not preempt or supersede the authority of the State Department of Fish and Game or local agencies to prohibit, restrict, or control the discharge of wastewater subject to their control.

9. Water Quality Control Plan for the Lahontan Region

The Regional Board adopted the Water Quality Control Plan for the Lahontan Region (Basin Plan) on March 31, 1995. The Basin Plan contains beneficial use designations and water quality objectives for all waters of the Lahontan Region. These requirements implement this Plan.

10. Prohibitions in the Lahontan Region

The Basin Plan contains prohibitions against the discharge of wastes to surface waters in various locations throughout the Lahontan Region. Any discharge proposed in an area where a discharge prohibition may apply must be evaluated on an individual basis to determine if the discharge would violate the prohibition. Exemptions may be granted on a case by case basis by resolution of the Regional Board, or by the Executive Officer in accordance with Regional Board policy.

11. Beneficial Uses - Ground Water

The designated beneficial uses of ground water within the Lahontan Region are municipal, industrial, and agricultural supply and fresh water recharge.

12. Beneficial Uses - Surface Waters

The designated beneficial uses of surface waters in the Lahontan Region are: municipal and domestic, industrial, and agricultural supply; water contact and non-contact recreation; rare, threatened or endangered species; navigation; ground water recharge, fresh water replenishment; hydropower generation; warm and cold fresh water habitat, commercial and sport fishing, preservation of biological habitats of special significance, aquaculture, flood peak attenuation/flood water storage, commercial and sports fishing, migration of aquatic organisms, inland saline water habitat, spawning, reproduction and development, wildlife habitat and water quality enhancement.

13. Land Disposal

The Basin Plan encourages the disposal of wastewater on land where practicable, and requires applicants for discharge permits to evaluate land disposal as a first alternative. Where studies show that year-round land disposal is not practicable, the Regional Board will require dischargers to evaluate dry season land disposal as an alternative.

14. Antidegradation

The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16 and finds that the subject discharges are consistent with those provisions. If the discharge is not consistent with these policies it will not be covered under this permit, but could have a separate permit. There will not be degradation if the requirements of the permit are met.

15. Effluent Limits and Standards

Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 304, and 307 of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.

16. CEQA Compliance

The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code.

17. Public Notification

The Regional Board has notified interested agencies and persons of its intent to prescribe waste discharge requirements in this General Order and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

18. Applicability

This Order shall serve as an NPDES permit pursuant to Section 402 of the Clean Water Act, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that all Dischargers that file an NOI and appropriate filing fee indicating their intention to be regulated under provisions of this General Order, and all heirs, successors, or assigns, in order to meet the provisions contained in Division 7 of the California Water Code and Regulations adopted thereunder, and the provisions of the Clean Water Act and Regulations and Guidelines adopted thereunder, shall comply with the following:

1. **Regionwide Discharge Prohibitions:**

A. Discharge Specifications

1. Discharge of wastewater other than that described in Finding No. 2 is prohibited.
2. The discharge of waste which causes violation of any narrative water quality objective contained in the Basin Plan, including the Nondegradation Objective, is prohibited.
3. The discharge of waste which causes violation of any numeric water quality objective or prohibition contained in the Basin Plan is prohibited. (see Chapters 3, 4.1 and 5.2 of the Basin Plan)

4. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste which causes further degradation or pollution is prohibited.

2. Discharge Specifications

A. Receiving Water Limitations

The following narrative water quality objectives apply to all surface waters, including wetlands, in the Lahontan Region. The discharge of waste from within the project area to surface waters shall not cause a violation of the following:

1. Ammonia

Ammonia concentrations shall not exceed the values listed in Tables 3-1 to 3-4 of the Basin Plan for the corresponding conditions in these tables.

2. Bacteria, Coliform

Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes.

The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml. *The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20/100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.*

3. Biostimulatory Substances

Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.

4. Chemical Constituents

Waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified by the more restrictive of the California Code of Regulations, Title 22, Division 4, Chapter 15, or 40 Code of Federal Regulations, Part 141.

Waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

5. Chlorine, Total Residual

For the protection of aquatic life, total chlorine residual shall not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values shall be based on daily measurements taken within any six-month period.

6. Color

Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.

7. Dissolved Oxygen

The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation.

For waters with the beneficial uses of COLD, COLD with SPWN, WARM, and WARM with SPWN, the minimum dissolved oxygen concentration shall not be less than that specified in Table 3-6 of the Basin Plan.

8. Floating Materials

Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses.

For natural high quality waters, the concentrations of floating material shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

9. Oil and Grease

Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses.

For natural high quality waters, the concentration of oils, greases, or other film or coat generating substances shall not be altered.

10. Nondegradation of Aquatic Communities and Populations

All wetlands shall be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life.

All wetlands shall be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes except as authorized by this permit (dredge and fill in wetlands).

11. Pesticides

For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, pesticides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code § 12753).

Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.

Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15.

12. pH

In fresh waters with designated beneficial uses of COLD or WARM, changes in normal ambient pH levels shall not exceed 0.5 pH units. For all other waters of the Region, the pH shall not be depressed below 6.5 nor raised above 8.5.

The Regional Board recognizes that some waters of the Region may have natural pH levels outside of the 6.5 to 8.5 range. Compliance with the pH objective for these waters will be determined on a case-by-case basis.

13. Radioactivity

Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

Waters shall not contain concentrations of radionuclides in excess of the limits specified by the more restrictive of the California Code of Regulations, Title 22, Division 4, Chapter 15, or 40 Code of Federal Regulations, Part 141.

14. Sediment

The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses, except as authorized by this permit (dredge and fill activities in wetlands).

15. Settleable Materials

Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. For natural high quality waters, the concentration of settleable materials shall not be raised by more than 0.1 milliliter per liter.

16. Suspended Materials

Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affects the water for beneficial uses.

For natural high quality waters, the concentration of total suspended materials shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

17. Taste and Odor

Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. For naturally high quality waters, the taste and odor shall not be altered.

18. Temperature

The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such an alteration in temperature does not adversely affect the water for beneficial uses.

For waters designated WARM, water temperature shall not be altered by more than five degrees Fahrenheit (5°F) above or below the natural temperature. For waters designated COLD, the temperature shall not be altered.

Temperature objectives for COLD interstate waters and WARM interstate waters are as specified in the "Water Quality Control Plan for Control of Temperature in The Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" including any revisions. This plan is summarized in Chapter 6 (Plans and Policies), and included in Appendix B of the Basin Plan.

19. Toxicity

All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. *Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Regional Board.*

The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for “experimental
Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1992).

20. Turbidity

Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.

3. Provisions

- A. The Discharger must comply with all conditions of this Order, including timely submittal of monitoring reports as directed in Monitoring and Reporting Program No. 98-??? or by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revocation of authorization to discharge under this Order.
- B. Individual owners of the real property at which the discharge will occur are ultimately responsible for ensuring compliance with these requirements. Individuals and companies responsible for site operations retain primary responsibility for compliance with these requirements, including day-to-day operations and monitoring. Enforcement actions will be taken against landowners in the event that enforcement actions against site operators are ineffective or would be futile, or that enforcement is necessary to protect public health or the environment.
- C. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating and site management personnel shall be familiar with its contents.
- D. The Discharger shall comply with all the applicable items of the "Standard Provisions for NPDES Permits" contained in Attachment A of this Order. This attachment and its individual paragraphs are referred to as "Standard Provision(s)."

- E. The Discharger shall comply with the attached "General Provisions for Monitoring and Reporting" contained in Attachment B of this Order, and any revisions thereto, as ordered by the Executive Officer.
- F. When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in Monitoring and Reporting Program No. 6-98-36.
- G. This Order expires on **June 4, 2003**.
- H. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name, address, and telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, Harold J. Singer, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 4, 1998.

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments A. Standard Provisions for NPDES Permits
 B. General Provisions for Monitoring and Reporting

ATTACHMENT A

STANDARD PROVISIONS FOR NPDES PERMITS

1. The permittee must comply with all of the terms, requirements, and conditions of this permit. Any violation of this permit constitutes violation of the Act, its regulations and the California Water Code, and is grounds for enforcement action, permit termination, permit revocation, and reissuance, denial of an application for permit reissuance; or a combination thereof.
2. The permittee shall comply with effluent standards or prohibitions established under 307(a) of the Clean Water Act (CWA) for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

The California Water Code provides that any person who violates a waste discharge requirement (same as permit condition), or a provision of the California Water Code, is subject to civil penalties of up to \$1,000 per day or \$10,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.*

Violations of any of the provisions of the NPDES program, or of any of the provisions of this permit, may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.*

3. The Clean Water Act (CWA) provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$2,500, nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. [40 CFR 122.41(a)(2)]
4. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. [40 CFR 122.41(b)]
5. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR 122.41(c)]
6. The permittee shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting health or the environment. [40 CFR 122.41(d)]
7. The permittee shall, at all times, properly operate and maintain all the facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with this permit. Proper operation and maintenance includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems that are installed by a permittee only when necessary to achieve compliance with the conditions of this permit. [40 CFR 122.41(e)]

8. This permit may be modified, revoked and reissued, or terminated for **cause**. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [CFR 122.41(g)]
9. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 122.41(f)]
10. The permittee shall furnish, within a reasonable time, any information the Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee shall also furnish to the Board, upon request, copies of records required to be kept by this permit. [40 CFR 122.41(h)]
11. The Board, EPA, and other authorized representatives shall be allowed:
 - a) Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;
 - b) Access to copy any records that are kept under the conditions of this permit;
 - c) To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d) To photograph, sample, and monitor for the purpose of assuring compliance with this permit, or as otherwise authorized by the Clean Water Act.[40 CFR 122.41(j)]
12. Monitoring and records.
 - a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b) The permittee shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time.
 - c) Records of monitoring information shall include:
 - i) The date, exact place, and time of sampling or measurements;
 - ii) The individual(s) who performed the sampling or measurements;
 - iii) The date(s) analyses were performed;
 - iv) The individual(s) who performed the analyses;
 - v) The analytical techniques or methods used; and
 - vi) The results of such analyses.
 - d) Monitoring must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this permit.
 - e) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, or method required to be

maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

[40 CFR 122.41(j)]

13. All applications, reports, or information submitted to the Board shall be signed and certified in accordance with 40 CFR 122.22. [40 CFR 122.41(k)(l)]
14. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both. [40 CFR 122.41(k)(2)]
15. Reporting requirements:
 - a) The permittee shall give advance notice to the Board, as soon as possible of, any planned physical alterations, or additions to the permitted facility.
 - b) The permittee shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.
 - c) This permit is not transferable to any person, except after notice to the Regional Board. The Board may require modification, or revocation and reissuance of the permit to change the name of the permittee, and incorporate such other requirements as may be necessary under the Clean Water Act.
 - d) Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - i) Monitoring results must be reported in a Discharge Monitoring Report (DMR).
 - ii) If the permittee monitors any pollutant more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - iii) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
 - e) Report of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

- f) Twenty-four hour reporting.
 - i) The permittee shall report any noncompliance that may endanger health or the environment to the Board. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - ii) The following shall be included as information that must be report within 24 hours under this paragraph:
 - a) Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - b) Any upset that exceeds any effluent limitation in the permit.
 - c) Violation of a maximum daily discharge limitation for any of the pollutants listed in this permit to be reported within 24 hours.
 - iii) The Board may waive the above-required written report on a case-by-case basis.
- g) The permittee shall report all instances of noncompliance, not otherwise reported under the above paragraphs, at the time monitoring reports are submitted. The reports shall contain all information listed in paragraph 15(f) above.

[40 CFR 122.41(1)]

16. Bypass (the intentional diversion of waste streams from any portion of facility) is prohibited. The Board may take enforcement action against the Discharger for bypass unless:
- a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);
 - b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up

equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and

- c) The permittee submitted a notice, at least ten days in advance, of the need for a bypass to the appropriate Board.

The permittee may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable.

The permittee shall submit notice of an unanticipated bypass as required in paragraph 15(f) above.

[40 CFR 122.41(m)]

- 17. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action. A permittee that wishes to establish the affirmative defense of an upset in an action brought for noncompliance shall demonstrate, through signed, contemporaneous operating logs, or other relevant evidence that:
 - a) an upset occurred and that the permittee can identify the cause(s) of the upset;
 - b) the permitted facility was being properly operated at the time of the upset;
 - c) the permittee submitted notice of the upset as required in paragraph 15(f) above; and
 - d) the permittee complied with any remedial measures required under paragraph 7.

No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

[40 CFR 122.41(n)]

- 18. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Board as soon as they know or have reason to believe:
 - a) that any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this

permit, if that discharge will exceed the highest of the following "notification levels:"

- i) One hundred micrograms per liter (100 ug/l);
 - ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).
- b) that they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant that was not reported in the permit application.

[40 CFR 122.42(a)]

* This paragraph was added or modified by the State Water Quality Control Board to the California Water Code.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. 98-36

NPDES NO. CAG996001

FOR

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES)
GENERAL PERMIT FOR
LIMITED THREAT DISCHARGES TO SURFACE WATERS**

I. MONITORING

This monitoring program includes both discharge and receiving water sampling. It is the Regional Board's policy to periodically review all monitoring and reporting programs to evaluate their adequacy and usefulness. If this monitoring program shows that the discharge is not posing a significant threat to exceed receiving water limits, the Regional Board will modify this monitoring program to reduce constituents analyzed and/or sampling frequency.

A. Flow Monitoring

The Discharger shall calculate the average daily flow rate of the Facility discharge during the entire period of the discharge. A log of all startup and shutdown times shall also be kept.

B. Discharge Monitoring

Beginning at the onset of any discharge and continuing throughout the period of discharge, grab samples of the Facility effluent shall be collected at twelve (12) hour intervals at the discharge point and analyzed as follows:

<u>Constituent</u>	<u>Units</u>	<u>Detection Limit</u>
Total Dissolved Solids	mg/l	
Total Nitrogen	mg/l as N	0.1 mg/l
Total Phosphorus	mg/l as P	0.01 mg/l
Total Iron	mg/l	0.05 mg/l
Turbidity	NTU	0.1 NTU
Temperature	°C	
pH	pH units	

C. Receiving Water Monitoring

Receiving water sampling stations shall be established at locations agreed upon with Regional Board staff prior to discharge. Two stations shall be established with one upstream of any potential influence from the discharge and one downstream of all discharges to the stream. Grab samples of the receiving water shall be collected every 12 hours. The initial sample shall be taken at the first sign of discharge to the surface water. Samples shall be analyzed for the following:

<u>Constituent</u>	<u>Units</u>	<u>Detection Limit</u>
Total Dissolved Solids	mg/l	
Total Nitrogen	mg/l as N	0.1 mg/l
Total Phosphorus	mg/l as P	0.01 mg/l
Total Iron	mg/l	0.05 mg/l
Turbidity	NTU	0.1 NTU
Temperature	°C	
pH	pH units	

In conducting the receiving water sampling, a log shall be kept of the visual condition of the surface water. Attention shall be given to the presence or absence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Visible films, sheens, or coatings
- d. Potential nuisance conditions
- e. Aquatic life
- f. Algae, fungi, slimes or other aquatic vegetation

D. Analysis of Samples

All analyses shall be performed in accordance with the current edition of *Standard Methods for the Examination of Water and Wastewater*, and in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Executive Officer.

II. REPORTINGA. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting", dated September 1, 1994, which is attached to and made a part of this Monitoring and Reporting Program.

B. Report Format

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations and the sampling points are readily discernible. Original lab data sheets (or photocopies) shall also be included.

C. Submittal Periods

Samples shall be analyzed as soon possible, but no longer than 12 hours after they are collected. Reports shall be transmitted by facsimile or hand delivered to the Regional Board office in South Lake Tahoe within 24 hours of the time of sampling.

HAROLD J. SINGER
EXECUTIVE OFFICER

Date: _____

Attachment: General Provisions for Monitoring and Reporting

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board Executive Officer prior to use.
- d. The discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

- a. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- c. The discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
 - i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
 - ii. In the case of a partnership, by a general partner;
 - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
 - i. Name and telephone number of individual who can answer questions about the report.
 - ii. The Monitoring and Reporting Program Number.
 - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. 6-98-75
NPDES NO. CA G916001

WASTE DISCHARGE REQUIREMENTS

FOR

**UPDATED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR
SURFACE WATER DISPOSAL OF TREATED GROUND WATER**

Lahontan Region

The California Regional Water Quality Control Board, Lahontan Region (Regional Board), finds:

1. Justification for the General Permit

Numerous unauthorized releases of petroleum product and chlorinated hydrocarbon pollutants have impacted ground waters of the Lahontan Region. Releases occur from leaking underground and aboveground fuel tanks and other unauthorized discharges.

Several treatment technologies currently employed for remediation include the extraction and aboveground treatment of ground water. Such methods may include disposal to nearby surface waters.

The discharge of water from a ground water treatment unit to navigable waters is a discharge of waste that could affect the quality of the waters of the United States. This Permit covers the discharge of treated water from cleanups of pollution, other than through a community wastewater collection and treatment facility, to surface waters of the United States.

40 Code of Federal Regulations (CFR) 122.28 provides for the issuance of general permits to regulate discharges of waste which are generated from similar sources. On September 22, 1989, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) entered into a memorandum of agreement which authorized and established procedures for the SWRCB and the Regional Boards to issue general National Pollutant Discharge Elimination System (NPDES) Permits in accordance with 40 CFR 122.28.

2. Issuance of the General Permit

The responsible party(ies) and property owner, or solely the property owner, are considered as "Discharger" for the purposes of this Permit.

An NPDES application must be filed by the Discharger for each proposed discharge to be covered by this Permit. The application must include an appropriate filing fee. Information necessary to support the application is listed in a separate document titled Information to Support Discharge of Treated Ground Water to Surface Waters (Application). This document may be obtained from either Regional Board Office.

This Permit shall only apply to Dischargers to whom a Notice of Applicability (NOA) has been issued by the Executive Officer. A NOA must be issued for each proposed discharge.

3. Wastewater Description

The primary pollutants covered by this Permit are petroleum product and chlorinated hydrocarbon constituents. Petroleum hydrocarbon constituents include total petroleum hydrocarbons measured as gasoline, diesel, kerosene, fuel oil, and heavier carbon ranges; benzene, toluene, ethylbenzene, xylenes; methyl-tertiary-butyl ether (MTBE); tetraethyl lead; and, ethylene dibromide. Chlorinated hydrocarbon constituents include trichloroethene and tetrachloroethene and their secondary degradation products. Other constituents may be present in the polluted water to be treated. A complete list of constituents covered by this Permit are included in the Discharge Specification section of the Permit.

4. Water Quality Control Plan

The Regional Board adopted Water Quality Control Plan for the Lahontan Region (Basin Plan), on March 31, 1995. This Permit implements this Plan, as amended.

The SWRCB has adopted a Water Quality Plan for the Lake Tahoe Basin. This Plan contains water quality objectives for all waters of the Lake Tahoe Basin. This Permit implements the Lake Tahoe Plan.

The Basin Plan contains prohibitions for the discharge of waste to surface waters in the following areas of the Lahontan Region:

- i. Surprise Valley, Eagle Lake, Madeline Plains, and the Honey Lake Hydrologic Unit.
- ii. Truckee River, Lake Tahoe, East and West Fork Carson River, and East and West Fork Walker River Hydrologic Unit.
- iii. Glenshire and Devonshire subdivisions.
- iv. Mono - Owens Planning Unit

- (1) Mill Creek and Lee Vining Creek Watersheds
 - (2) Rush Creek Watershed above the outlet from Grant Lake
 - (3) The Owens River and tributaries upstream of Crowley Lake above elevation 7,200 feet
 - (4) The Owens River and Tributaries downstream of Crowley Lake above elevation 5,000 feet
 - (5) Mammoth Creek Watershed above elevation 7,650 feet, including the drainage area of the community of Mammoth Lakes
 - (6) Inyo County Service Area No. 1, including Assessment Districts No. 1 and No. 2, Rocking K subdivision, and City of Bishop
- v. Antelope Valley Planning Area
- (1) The Antelope Hydrologic Unit above elevation 3,500 feet
- vi. Mojave River Planning Area
- (1) The Mojave Hydrologic Unit above elevation 3,200 feet
 - (2) Silver Lake Watershed
 - (3) Deep Creek Watershed above elevation 3,200 feet
 - (4) Grass Valley Creek Watershed above elevation 3,200 feet
 - (5) Area North of State Highway 18 within the area commonly known as Apple Valley Desert Knolls

Certain exemptions may apply.

5. Beneficial Uses

The beneficial uses of ground waters within the Lahontan Region as designated in the Basin Plan are:

- a. municipal and domestic supply
- b. industrial service supply
- c. agricultural supply
- d. freshwater replenishment

These beneficial uses apply to all ground waters of the Region except where lesser beneficial uses are designated in the Basin Plan.

The beneficial uses of surface waters in the Lahontan Region as designated in the Basin Plan are:

- a. municipal and domestic supply
- b. agricultural supply
- c. industrial service supply
- d. ground water recharge
- e. water contact recreation
- f. non-contact water recreation
- g. warm freshwater habitat
- h. cold freshwater habitat
- i. wildlife habitat
- j. inland saline water habitat
- k. hydropower generation
- l. rare, threatened or endangered species
- m. freshwater replenishment
- n. industrial process supply
- o. navigation
- p. commercial and sportsfishing
- q. aquaculture
- r. preservation of biological habitats of special significance
- s. migration of aquatic organisms
- t. spawning, reproduction, and development
- u. water quality enhancement
- v. flood peak attenuation / flood water storage

These beneficial uses apply to surface waters of the Lahontan Region except where lesser beneficial uses are designated in the Basin Plan.

6. Discharge Prohibition Exemption

The proposed discharges covered by this Permit are waters that are treated by methods to achieve nondetectable contaminant concentrations. The discharge specifications of this Order contain a 30-day median effluent limit of less than laboratory detection limits and a daily maximum value that is protective of water quality objectives. The discharge allowed by this General Permit will not individually or collectively, directly or indirectly, affect water quality or result in a pollution or nuisance. Therefore, the proposed discharges may be granted an exemption to the above discharge prohibitions where such exemptions are allowed for in the Basin Plan.

7. Established Water Quality Standards

SWRCB Resolution No. 68-16

SWRCB Resolution No. 68-16 is a part of the Basin Plan for the Lahontan Region and describes a nondegradation policy for the waters of the State. Man-made fuel and solvent constituents are not naturally occurring, and thus pre-existing background concentrations of these constituents are considered nondetectable (below current analytical laboratory detection limits) in waters of the Region.

Existing Best Practicable Treatment (BPT) for the treatment of organic constituents in polluted water is capable of reliably removing most man-made constituents to nondetectable levels. The commonly achieved detection limits for these constituents in treated water are as follows:

Constituent	Detection Level	Units	Analytical Methods*
Total Petroleum Hydrocarbons	50	µg/l	EPA Method 8015 (C ₂ - C ₄₆)
Benzene	0.1	µg/l	EPA Method 602
Toluene	0.5	µg/l	EPA Method 602
Xylene	0.5	µg/l	EPA Method 602
Ethylbenzene	0.5	µg/l	EPA Method 602
Total Lead	1.0	µg/l	Graphite Furnace AA
Naphthalene	0.5	µg/l	EPA 610
Methyl tertiary-butyl ether (MTBE)	1.0	µg/l	EPA 8020 or 8260
Ethylene Dichloride (EDB)	0.02	µg/l	DHS-AB1803
1,2 Dichloroethane (1,2 DCA)	0.5	µg/l	EPA 601
Trichloroethane (1,1,1 TCA)	0.5	µg/l	EPA 601
Tetrachloroethene (PCE)	0.5	µg/l	EPA 601
Trichloroethene (TCE)	0.5	µg/l	EPA 601
Trans-1,2 Dichloroethene (Trans-1,2 DCE)	0.5	µg/l	EPA 601
Cis-1,2 Dichloroethene (Cis-1,2 DCE)	0.5	µg/l	EPA 601
1,1 Dichloroethene (1,1 DCE)	0.5	µg/l	EPA 601
1,1 Dichloroethane (1,1 DCA)	0.5	µg/l	EPA 601
1,1,2 Trichloroethane (1,1,2 TCA)	0.5	µg/l	EPA 601
Vinyl Chloride	0.5	µg/l	EPA 601

- * Alternative analytical methods that provide equivalent detection limits may be proposed in the NPDES Permit application or site specific Sampling and Analysis Plan.

Primary Drinking Water Standards

The State of California and/or the USEPA have set primary drinking water standards for the following hydrocarbon constituents as follows:

Constituent	Level	Units	Consideration
EDB	0.02	µg/l	Primary State of CA MCL
1,2 DCA	0.50	µg/l	Primary State of CA MCL
Total Lead	15	µg/l	Primary State of CA MCL
Benzene	1.0	µg/l	Primary State of CA MCL
Toluene	100	µg/l	Primary State of CA MCL
Xylenes	680	µg/l	Primary State of CA MCL
Ethylbenzene	1760	µg/l	Primary State of CA MCL
MTBE	14	µg/l	Draft State of CA PHG
PCE	5	µg/l	Primary State of CA MCL
TCE	5	µg/l	Primary State of CA MCL
1,1,1 TCA	200	µg/l	Primary State of CA MCL
trans-1,2 DCE	10	µg/l	Primary State of CA MCL
cis-1,2 DCE	6	µg/l	Primary State of CA MCL
1,1 DCE	6	µg/l	Primary State of CA MCL
1,1 DCA	5	µg/l	Primary State of CA MCL
1,1,2 TCA	32	µg/l	Primary State of CA MCL
Vinyl Chloride	0.5	µg/l	Primary State of CA MCL

Secondary Drinking Water Standards

The State of California has set secondary drinking water standards for taste and odor of all constituents at a maximum contaminant level of three threshold odor units (TOU), Section 64473, Title 22, of the California Code of Regulations. The Federal EPA has proposed secondary drinking water standards for a select group of constituents based on a three TOU concentration (Federal Register, Vol. 54, No. 97, pp. 22138, 22139). The following proposed secondary standards are lower than or equal to the primary drinking water standards set for these constituents by the State of California.

Constituent	Level	Units	Consideration
Total Petroleum Hydrocarbons (C ₂ -C ₁₅)	50	µg/l	Taste and Odor
Total Petroleum Hydrocarbons (C ₁₆ -C ₄₆)	100	µg/l	Taste and Odor

Constituent	Level	Units	Consideration
Toluene	42	µg/l	Taste and Odor
Ethylbenzene	29	µg/l	Taste and Odor
Total Xylenes	17	µg/l	Taste and Odor
MTBE	5	µg/l	Proposed Taste and Odor

EPA Health Advisory Levels

The USEPA has established Health Advisory levels for selected petroleum product constituents in ground water as follows:

Constituent	Level	Units	Consideration
Naphthalene	20	µg/l	Health Advisory
MTBE	35	µg/l	Health Advisory

8. Antidegradation Policy

The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and SWRCB Resolution No. 68-16 and finds that the subject discharges are consistent with the provisions of these policies. An antidegradation analysis is not necessary for this Permit. Discharges not consistent with the provisions of these policies and regulations are not covered by this general Permit.

9. Clean Water Act

Effluent limitations, toxic, and pretreatment effluent standards established pursuant to Sections 301, 302, 304, and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.

10. California Environmental Quality Act Compliance

The action to adopt an NPDES Permit is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.) in accordance with Section 13389 of the California Water Code and Section 15263 of the CEQA.

11. Notification of Interested Parties

The Regional Board has notified interested agencies and persons of its intent to adopt the General NPDES Permit.

12. Consideration of Public Comments

The Regional Board, in a public hearing, heard and considered all comments pertaining to the General NPDES Permit.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent/Discharge Limitations

Numerical effluent limitations listed below include 30-day median and daily maximum values. Thirty-day median concentration limits listed below are based on what is achievable by Best Practicable Treatment (BPT). BPT for petroleum and chlorinated hydrocarbon constituents is capable of reliably treating to below laboratory detection limits. Daily maximum values are based on established water quality standards which are protective of beneficial uses of ground and surface waters of the Lahontan Region.

Thirty-day median values are to be calculated based on the analytical results of samples obtained over 30 successive days ("running 30-day median"). A sufficient number of samples must be collected and analyzed to demonstrate compliance with the effluent limitations.

Discharge Specifications of this Permit list the 30-day median effluent limitations of specific constituents to be monitored are listed in the NOA issued to the Discharger. If the analytical results of effluent sampling indicate a detectable concentration of a constituent that is listed in the NOA, then sufficient samples must be collected and analyzed during the ensuing 30 days to demonstrate compliance with the 30-day median effluent limitations. The running 30-day median time frame shall begin the day the sample containing a detectable concentration was collected. Any detected concentration above a daily maximum value listed in this Permit is a violation of the Permit.

1. The discharge of an effluent in excess of the following limits is prohibited. All samples of effluent are to be single grab samples.

Constituents	Units	30-day Daily	
		Median	Maximum
Total Petroleum Hydrocarbons (C ₂ -C ₄₆)	µg/l	<50	100
Benzene	µg/l	<0.50	1.0
Toluene	µg/l	<0.50	42.0
Ethylbenzene	µg/l	<0.50	29.0

Constituents	Units	30-day Daily	
		Median	Maximum
Total Xylenes	µg/l	<0.50	17.0
Total Lead	µg/l	<1.0*	15.0
Naphthalene	µg/l	<0.5	20
MTBE	µg/l	<1.0	35
EDB	µg/l	<0.02	0.02
1,2 DCA	µg/l	<0.50	0.50
1,1,1 TCA	µg/l	<0.50	200
PCE	µg/l	<0.50	5.0
TCE	µg/l	<0.50	5.0
Trans-1,2 DCE	µg/l	<0.50	10
Cis-1,2 DCE	µg/l	<0.50	6
1,1 DCE	µg/l	<0.50	6
1,1 DCA	µg/l	<0.50	5
1,1,2 TCA	µg/l	<0.50	32
vinyl chloride	ug/l	<0.50	0.50

* This 30-day median limit could be set above 1.0 µg/l if the Discharger can demonstrate in the NPDES Permit Application that background Total Lead concentrations in the receiving water are greater than 1.0 µg/l. Any 30-day median limit allowed above 1.0 µg/l will be listed in the NOA. All samples for total lead are to be filtered samples.

2. The discharge shall not have a pH of less than 6.5 nor greater than 8.5.
3. There shall be no acute or chronic toxicity in undiluted effluent. Acute toxicity is defined as less than ninety percent survival fifty percent of the time, and less than seventy percent survival ten percent of the time. The tests shall be conducted using standard test organisms in undiluted effluent in 96-hour static or continuous flow tests. Chronic toxicity shall be in accordance with and as defined in Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, EPA-600/4-85-014.

B. Receiving Water Limitations

1. The discharge shall not cause the presence of the following substances or conditions in a receiving water:
 - a. Concentrations of dissolved oxygen to fall below 7.0 mg/l. If background dissolved oxygen of the receiving water is less than 7.0 mg/l, then the discharge shall not depress the natural dissolved oxygen concentration.

- b. Oils, greases, waxes, or other materials to form a visible film or coating on the water or ground surface.
- c. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.
- d. Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, aquatic life.
- e. Aesthetically undesirable discoloration.
- f. Fungi, slimes, or other objectionable growths.
- g. Turbidity to increase to more than 10 percent of background levels, and/or to levels toxic to natural flora and/or fauna.
- h. The normal ambient pH to fall below 6.5, exceed 8.5, change by more than 1.0 units, or change to a level that is toxic to the natural flora and/or fauna.
- i. Deposition of material that causes nuisance or adversely affects beneficial uses.
- j. The normal ambient temperature to be altered more than five degrees Fahrenheit.
- k. Radionuclides to be present in concentrations that are harmful to human, plant, animal, or aquatic life, or that results in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
- l. Concentrations of radionuclides in excess of the maximum contaminant levels specified in the California Code of Regulations, Title 22.
- m. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or to cause nuisance or adversely affect beneficial uses.
- n. Violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB pursuant to the Clean Water Act and regulations adopted thereunder.

C. General Requirements and Discharge Prohibitions

1. All discharges covered by this Permit shall be limited to treated water from the investigation and remediation of identified or potential ground water pollution. This Permit shall apply only to discharges that meet the following conditions.
 - a. The identified pollutants have effluent limitations prescribed in this general Permit;
 - b. The treatment system is capable of reliably meeting all prescribed effluent limitations in this general Permit; and
 - c. The general water quality of the discharge is of equal to or better water quality than that of the receiving water. General water quality is to be determined as part of the Permit application process.
2. There shall be no discharge, bypass, or diversion of polluted or partially treated water, sludge, grease, oils, purge water, development water, or pump test water from the collection, transport, or disposal facilities to adjacent land areas or surface waters.
3. The discharge shall not cause a pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
4. Neither the treatment nor the discharge shall cause a nuisance as defined in Section 13050 of the California Water Code.
5. The discharge of treated wastewater except to the disposal point(s) authorized in the NOA is prohibited.
6. The discharge shall not cause erosion of sediments.

II. PROVISIONS

A. Discharge Prohibitions

Discharges regulated by this Order are hereby exempt from the Discharge Prohibitions described in the Basin Plan where the Basin Plan provides for such exemptions.

B. Standard Provisions

The Discharger shall comply with the "Standard Provisions for NPDES Permits," in Attachment "A," which is made part of this Permit.

C. Monitoring and Reporting

1. Pursuant to the California Water Code Section 13267(b), the Discharger shall comply with the Monitoring and Reporting Program No. 93-104 as specified by the Executive Officer.
2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

D. Applicability

1. Wastewater remediated by the treatment unit may typically be generated from the following sources during the investigation and/or remediation of ground water pollution:
 - a. Ground water extracted from the underlying aquifer as part of the ground water remediation process.
 - b. Potentially polluted ground water generated during aquifer pump tests.
 - c. Potentially polluted well development water or purge water generated during ground water monitoring.
 - d. Other waste water generated during site investigations or cleanups.
2. This Permit does not pre-empt or supersede the authority of other agencies to prohibit, restrict, or control the discharge of treated ground water.
3. When individual Waste Discharge Requirements are issued to a Discharger otherwise subject to this Permit, the applicability of this Permit to the Discharger is automatically terminated on the effective date of the individual Permit.

4. Discharges currently regulated under an existing NPDES Permit shall continue to be regulated by the existing Permit until its expiration. At least 180 days prior to expiration of the existing Permit, the Discharger shall file a revised Report of Waste Discharge (RWD). The Discharger shall be subject to the requirements of this general Permit only after a NOA has been issued by the Executive Officer.

E. Expiration Date

This general Permit expires on **November 6, 2003**. However, the general Permit shall continue in force and effective until a new general Permit is issued.

F. National Pollutant Discharge Elimination System

This Permit shall become the NPDES Permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto upon its adoption by the Regional Board.

The NPDES Permit becomes effective 10 days after adoption by the Regional Board provided no objection from the USEPA has been received. If the Regional Administrator objects to its issuance, the Permit shall not become effective until such objection is withdrawn.

G. Definitions

"Waste" as used in this Permit includes, but is not limited to, any waste or waste constituent as defined in Section 13050 of the California Water Code, or Section 2601, Article 10, Chapter 15, Title 23, of the California Code of Regulations.

H. Operation and Maintenance

The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Permit. Pollutant-free wastewater may include rainfall, ground water, surface water, cooling waters, and condensates.

I. Notifications of Modifications

1. At least 180 days prior to making any change in the method of treatment or other factors which may affect the quality of the discharge, discharge point (Outfall), place of use, purpose of use of the wastewater, the Discharger shall file a new RWD/NPDES application. Any change in the character of the influent shall be reported to the Regional Board within 48 hours.

2. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Permit by letter. A copy of this letter should be immediately forwarded to this office.
3. The Discharger shall notify the Regional Board within 30 days when the clean-up activities are complete or the discharge will no longer occur. At that time the Executive Officer will consider withdrawal of the NOA. Once the NOA is withdrawn, the discharge will no longer be covered by this Permit and no discharge may occur prior to compliance with provisions of the California Water Code.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an NPDES Permit adopted by the California Regional Water Quality Control Board, Lahontan Region, on November 5, 1998.

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: Standard Provisions for Waste Discharge Requirements

STANDARD PROVISIONS FOR NPDES PERMITS

1. The permittee must comply with all of the terms, requirements, and conditions of this permit. Any violation of this permit constitutes violation of the Act, its regulations and the California Water Code, and is grounds for enforcement action, permit termination, permit revocation, and reissuance, denial of an application for permit reissuance; or a combination thereof.
2. The permittee shall comply with effluent standards or prohibitions established under 307(a) of the Clean Water Act (CWA) for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

The California Water Code provides that any person who violates a waste discharge requirement (same as permit condition), or a provision of the California Water Code, is subject to civil penalties of up to \$1,000 per day or \$10,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.*

Violations of any of the provisions of the NPDES program, or of any of the provisions of this permit, may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.*

3. The Clean Water Act (CWA) provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$2,500, nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. [40 CFR 122.41(a)(2)]
4. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. [40 CFR 122.41(b)]
5. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR 122.41(c)]
6. The permittee shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting health or the environment. [40 CFR 122.41(d)]
7. The permittee shall, at all times, properly operate and maintain all the facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with this permit. Proper operation and maintenance includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems that are installed by a permittee only when necessary to achieve compliance with the conditions of this permit. [40 CFR 122.41(e)]

8. This permit may be modified, revoked and reissued, or terminated for **cause**. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [CFR 122.41(g)]
9. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 122.41(f)]
10. The permittee shall furnish, within a reasonable time, any information the Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee shall also furnish to the Board, upon request, copies of records required to be kept by this permit. [40 CFR 122.41(h)]
11. The Board, EPA, and other authorized representatives shall be allowed:
 - a) Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;
 - b) Access to copy any records that are kept under the conditions of this permit;
 - c) To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d) To photograph, sample, and monitor for the purpose of assuring compliance with this permit, or as otherwise authorized by the Clean Water Act.[40 CFR 122.41(j)]
12. Monitoring and records.
 - a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b) The permittee shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time.
 - c) Records of monitoring information shall include:
 - i) The date, exact place, and time of sampling or measurements;
 - ii) The individual(s) who performed the sampling or measurements;
 - iii) The date(s) analyses were performed;
 - iv) The individual(s) who performed the analyses;
 - v) The analytical techniques or methods used; and
 - vi) The results of such analyses.
 - d) Monitoring must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this permit.
 - e) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, or method required to be

maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

[40 CFR 122.41(j)]

13. All applications, reports, or information submitted to the Board shall be signed and certified in accordance with 40 CFR 122.22. [40 CFR 122.41(k)(l)]
14. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both. [40 CFR 122.41(k)(2)]
15. Reporting requirements:
 - a) The permittee shall give advance notice to the Board, as soon as possible of, any planned physical alterations, or additions to the permitted facility.
 - b) The permittee shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.
 - c) This permit is not transferable to any person, except after notice to the Regional Board. The Board may require modification, or revocation and reissuance of the permit to change the name of the permittee, and incorporate such other requirements as may be necessary under the Clean Water Act.
 - d) Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - i) Monitoring results must be reported in a Discharge Monitoring Report (DMR).
 - ii) If the permittee monitors any pollutant more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - iii) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
 - e) Report of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

- f) Twenty-four hour reporting.
 - i) The permittee shall report any noncompliance that may endanger health or the environment to the Board. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - ii) The following shall be included as information that must be report within 24 hours under this paragraph:
 - a) Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - b) Any upset that exceeds any effluent limitation in the permit.
 - c) Violation of a maximum daily discharge limitation for any of the pollutants listed in this permit to be reported within 24 hours.
 - iii) The Board may waive the above-required written report on a case-by-case basis.
- g) The permittee shall report all instances of noncompliance, not otherwise reported under the above paragraphs, at the time monitoring reports are submitted. The reports shall contain all information listed in paragraph 15(f) above.

[40 CFR 122.41(1)]

16. Bypass (the intentional diversion of waste streams from any portion of facility) is prohibited. The Board may take enforcement action against the Discharger for bypass unless:
- a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);
 - b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up

equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and

- c) The permittee submitted a notice, at least ten days in advance, of the need for a bypass to the appropriate Board.

The permittee may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable.

The permittee shall submit notice of an unanticipated bypass as required in paragraph 15(f) above.

[40 CFR 122.41(m)]

- 17. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action. A permittee that wishes to establish the affirmative defense of an upset in an action brought for noncompliance shall demonstrate, through signed, contemporaneous operating logs, or other relevant evidence that:
 - a) an upset occurred and that the permittee can identify the cause(s) of the upset;
 - b) the permitted facility was being properly operated at the time of the upset;
 - c) the permittee submitted notice of the upset as required in paragraph 15(f) above; and
 - d) the permittee complied with any remedial measures required under paragraph 7.

No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

[40 CFR 122.41(n)]

- 18. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Board as soon as they know or have reason to believe:
 - a) that any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this

permit, if that discharge will exceed the highest of the following "notification levels:"

- i) One hundred micrograms per liter (100 ug/l);
 - ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).
- b) that they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant that was not reported in the permit application.

[40 CFR 122.42(a)]

* This paragraph was added or modified by the State Water Quality Control Board to the California Water Code.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

**MONITORING AND REPORTING PROGRAM NO. 98-75
NPDES NO. CA G916001**

FOR

**UPDATED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR SURFACE WATER DISPOSAL OF TREATED GROUND WATER**

Lahontan Region

I. MONITORING

The Information to Support Discharge of Treated Ground Water to Surface Waters (Application) necessitates the submittal of laboratory analytical data from samples collected from ground water monitoring wells within the ground water pollution plume or are otherwise representative of waters to be treated and discharged according to the General Permit. Based on these analysis, the final Report of Waste Discharge (RWD) should indicate all constituents of concern (COCs) that will be treated by the water treatment system.

The following Influent, Effluent, and Receiving Water Monitoring schedules detail sampling frequency. Constituents to be sampled for will be listed in the Notice of Applicability (NOA). Under certain adverse conditions, more frequent sampling is required if it is appropriate. An adverse condition is defined as any problem which does or could affect treatment facility compliance or efficiency. If at any time the system is shut down for a continuous time period greater than 60 days, the influent, effluent, and receiving water monitoring programs and toxicity testing must be reinitiated unless otherwise specifically approved by the Executive Officer.

A. Treatment Facility Startup Monitoring

Prior to disposal of any treatment effluent, the Discharger shall conduct startup monitoring to confirm that the treatment unit will produce effluent that complies with standards prescribed in the National Pollutant Discharge Elimination System (NPDES) Permit. During startup monitoring, the Discharger shall direct the treatment unit discharge to a temporary, impervious storage container. Startup monitoring shall be conducted until two consistent, consecutive sample results indicate that the treatment system effluent has stabilized and is in compliance with the Permit. Samples shall be collected a minimum of twelve and a maximum of 72 hours apart. Only treatment unit effluent is required to be analyzed during startup monitoring. Any treatment unit discharge that does not meet discharge specifications for effluent shall not be discharged to surface waters.

B. Flow Monitoring

The following information shall be recorded in a permanent log book:

1. The total volume, in gallons, of wastewater flow to the treatment facility for each day.
2. The total volume, in gallons, of wastewater flow to the treatment facility each month.
3. The average flow rate, in gallons per day, of wastewater flow to the treatment facility for each month.
4. The total volume of wastewater discharged from the treatment facility each month.

C. Treatment Facility Influent Monitoring

The purpose of the required influent monitoring is to verify the efficiency of the treatment system. Influent samples shall be collected after the last connection and before the wastes enter the treatment system. Influent samples should be representative of the volume and nature of the influent. Time of collection for grab samples must be discretely recorded. Specific constituents to be monitored shall be named in the NOA.

The minimum sampling frequency shall be as follows:

1. During the first two months of treatment unit operation, influent samples shall be collected on the 1st, 2nd, 4th, 7th, 14th, 21st, 28th, 42nd, and 56th days of operation.
2. During the third to sixth month, influent sampling shall be conducted every 30 days.
3. Thereafter, influent sampling shall be conducted every 90 days.

Sampling shall be conducted at a minimum according to the above schedule, and frequently enough to ensure that the effluent is in compliance with the discharge specifications of the permit. Site specific conditions, such as monitoring for potential breakthrough of the treatment system, may require more frequent monitoring.

D. Treatment Facility Effluent Monitoring

Effluent samples shall be collected immediately downstream of the last connection through which wastes can be admitted into the outfall. Effluent samples should be representative of the volume and nature of the discharge. Time of collection of grab samples shall be discretely recorded. The required sampling frequency shall be the same as that for the influent monitoring program as described above.

E. Receiving Water Monitoring

All receiving water samples shall be grab samples. Receiving water samples shall be collected in the same frequency as detailed in the influent monitoring program above. Receiving water samples shall be obtained from the following:

<u>Station</u>	<u>Description</u>
R-1	Upstream from the discharge point at a location specified in the NOA
R-2	No greater than 100 feet down stream of the discharge point at a location specified in the NOA
R-3	If applicable, the ultimate receiving water at a location specified in the NOA

In conducting any receiving water sampling in accordance with the required sampling frequency, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1, R-2, and R-3. Attention shall be given to the presence or absence of:

- a. floating or suspended matters
- b. discoloration
- c. bottom deposits
- d. aquatic life
- e. erosion and/or sediment deposition

Notes on receiving water conditions shall be maintained in a permanent logbook and summarized in the monitoring report.

II. TOXICITY TESTING

1. The Discharger shall perform toxicity testing, as described below, on the undiluted effluent. The effluent sample shall be collected immediately after discharge from the treatment unit, but prior to the wastewater reaching the receiving water. The tests shall be performed upon startup of the treatment facility and may also be required annually thereafter depending on the results of the initial toxicity testing.

Subsequent rounds of annual sampling shall be performed within 365 days of the startup date, and the results submitted to the California Regional Water Quality Control Board Lahontan Region (Regional Board) within 30 days thereafter. The results of the subsequent four annual tests, if required, shall be submitted to the Regional Board within 30 days of each annual sampling event. The species to be used in the toxicity analysis and procedures are described below.

2. All tests shall be conducted on grab samples of undiluted treatment facility effluent. Analysis of Variance (ANOVA) shall be used to determine whether differences between control and effluent data are significant.
 - a. The Discharger shall conduct a seven day Ceriodaphnia survival and reproduction test on samples of undiluted effluent. Toxicity will be demonstrated if there is a statistically significant difference at the 95% confidence level in survival or growth between Ceriodaphnia exposed to an appropriate control water and undiluted effluent. All test solutions shall be renewed daily. If in any control, more than 20% of the test organisms die, that test (control and effluent) shall be repeated. Further, if in any control, the reproduction rate (of offspring per female) averages less than 15, that test (control and effluent) shall be repeated.
 - b. The Discharger shall conduct an eight day Pimephales promelas (fathead minnow) embryo larval survival and teratogenicity test on samples of undiluted effluent. Toxicity will be demonstrated if there is a statistically significant difference at the 95% confidence level in survival or growth between Pimephales promelas exposed to an appropriate control water and undiluted effluent. All test solutions shall be renewed daily. If in any control, more than 20% of the test organisms die, that test (control and effluent) shall be repeated.

- c. The Discharger shall conduct a four day aquatic plant growth test on samples of undiluted effluent. Toxicity will be demonstrated if there is a statistically significant difference at the 95% confidence level in cell density, biomass, or chlorophyll absorbance between Selenastrum capricornutum exposed to appropriate control water and undiluted effluent. If in any control, the initial cell density decreases by more than 20%, that test (control and effluent) shall be repeated.
3. If any one test indicates the effluent is toxic, then another confirmatory chronic toxicity test using the specified methodology and same test species shall be conducted within 15 days. In no case shall the second confirmatory test results be submitted to the Regional Board later than 365 days from the previous annual sampling.
4. All test species, procedures, and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, Section 13; Ceriodaphnia Survival and Reproduction Test Method 1002.0, Section 12; Fathead Minnow (Pimephales promelas) Embryo Larval Survival and Teratogenicity Test Method 1001.0, Section 14; Algal (Selenastrum capricornutum) Growth Test Method 1003.0, EPA 600/4-85-014. After one year of toxicity monitoring the results of the three species tests will be evaluated by the Regional Board, and a determination will be made as to which species is most sensitive to the undiluted effluent. Thereafter, all subsequent annual toxicity testing shall be performed on the one species considered most sensitive.
5. A toxicity monitoring program shall be prepared that includes procedures and techniques for sample collection, sample preservation and shipment, analytical procedures, and chain of custody control. The program shall be submitted not less than 60 days prior to startup of the treatment facility.

III. REPORTING

A. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting," which is made part of this Monitoring and Reporting Program.

B. Submittal Periods

Quarterly reports shall be submitted to the Regional Board by the fifteenth (15th) day of January, April, July, and October of each year.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date of sample collection, the constituents, and the concentrations detected are readily discernible. Additionally, the data shall be narratively summarized in such a manner as to illustrate clearly to status of compliance with the Permit.

Upon written request, the Discharger shall submit an annual report to the Regional Board by **January 30th** of the following year. The report shall contain tabular, graphic, and narrative descriptions of the monitoring data obtained during the previous year. Additionally, the report shall clearly document the status of compliance with the Permit. If any corrective actions were necessary during the year to maintain or retain compliance, this annual report shall discuss these actions in detail.

The Discharger shall implement the above monitoring program immediately upon the commencement of the initial Discharger covered by this general Permit.

Ordered by: _____
HAROLD J. SINGER
EXECUTIVE OFFICER

Date: November 5, 1998

Attachments: General Provisions for Monitoring and Reporting

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board Executive Officer prior to use.
- d. The discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

- a. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- c. The discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
 - i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
 - ii. In the case of a partnership, by a general partner;
 - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
 - i. Name and telephone number of individual who can answer questions about the report.
 - ii. The Monitoring and Reporting Program Number.
 - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

**INFORMATION TO SUPPORT
DISCHARGE OF TREATED GROUND WATER
TO LAND OR TO SURFACE WATER**

This guidance document outlines the minimum information required by the California Regional Water Quality Control Board, Lahontan Region, prior to considering issuance of a Notice of Applicability for general waste discharge requirements for the discharge of treated ground water to land or to surface water. In addition to the information outlined in this document, a completed State Form 200 and filing fee must also be submitted.

Discharges to land regulated by the general Order include the following:

1. percolation trenches or basins
2. irrigation of landscaping
3. spray disposal
4. evaporation trenches or basins
5. subsurface infiltration
6. other similar discharges

Discharges to surface water regulated by the general Order include discharges to all bodies defined as surface waters in the Code of Federal Regulations, Section 122.2.

A. Background Information

A basic description of the proposed discharge must be provided to allow staff to determine if a general permit is applicable to the proposed discharge. This information generally includes:

1. Identification of the source of pollutants (source areas), the potential seasonal variations in the concentrations of pollutants and flow rates, and a general description of the proposed treatment and disposal systems.
2. Identification of the surface drainage controls, drainage courses and surface water bodies, including rivers, streams, lakes and ponds within one mile of the facility.
3. Locations of all recharge areas (e.g. ephemeral stream channels, percolation ponds, subsurface sewage disposal systems, irrigated agriculture, etc.) within one mile of the facility.
4. Identification of all piezometers and all wells, including monitoring, extraction, injection and supply wells, onsite and offsite within one mile of the site or within an area that may potentially be influenced by the discharge.
5. Property boundaries.
6. Buildings, dwellings, and other significant structures.

7. Map(s) of the site which depicts the location of all surface features identified above, including the process and source areas, the points of discharge and the extraction, treatment and disposal facilities.
8. Documentation of any compliance with the California Environmental Quality Act (CEQA) and all necessary local and state permits. Submit a copy of an Environmental Impact Report (EIR) or a Negative Declaration, if either has been prepared.

B. Chemical and Physical Wastewater Characteristics

A chemical and physical evaluation of the wastewater is needed to allow staff to assess the need for discharge standards and monitoring, and to evaluate the potential for impacts on water quality. The specifics of the characterization varies with the type of wastes being discharged. The following are minimum requirements for ground water cleanup discharges:

1. A minimum of one of each of the following analyses of the wastewater:
 - a. Chlorinated volatile hydrocarbons (EPA Methods 601 or 8010).
 - b. Aromatic volatile hydrocarbons (EPA Methods 602 or 8020).
 - c. Total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges (3550 GCFID). Additional or alternative TPH analyses may be required if the suspected pollutants contain hydrocarbon fractions outside the range of these tests.
 - d. General or standard minerals analyses, including but not limited to, total dissolved solids (TDS), chloride, sulfate, nitrate, electrical conductivity (EC), pH and temperature.
 - e. Other analyses associated with specific types of waste streams; for example, dissolved oxygen (DO) and suspended solids (SS).
2. On a site-by-site basis, a proposed surface water discharges may be required to conduct acute and chronic toxicity testing (EPA/600-4-85-014 and EPA/440/4-85-032).

C. Disposal Analysis

The disposal analysis usually contains the following:

1. An evaluation of land disposal options for the purpose of screening feasible disposal alternatives. Land disposal alternatives to be evaluated include those listed on page 1 of this document. An evaluation of the environmental and financial constraints for each alternative must be provided. The proposed disposal system may consist of two or more disposal alternatives.
2. A narrative and schematic description of each of the proposed alternatives in the disposal system. Identification of whether disposal occurs on a seasonal basis. Information on the type and size of the disposal alternative(s). Provide design details, including flows, for each disposal alternative.
3. A water mass balance for each land disposal alternative must be provided to assure that sufficient disposal capacity is available at all times under all weather and operational conditions.
4. A discussion on the potential hydraulic and other impacts of the selected wastewater disposal alternatives) on the migration and capture of the plume.
5. If treated water is to be used for irrigation, property owner, type and permeability of the soils, estimated quantities based on consumptive use, method of application, surface runoff controls and the irrigation season must be identified. Institutional arrangements for control of land must also be identified.
6. If ponds are used for the disposal of the treated wastewater, information on the freeboard and structural integrity and estimates of infiltration and evaporation must be provided.

D. Wastewater treatment system and characteristics

A description of the treatment facility is needed to assure that all waste streams are accounted for, and to aid in design of the monitoring program.

1. A detailed narrative description and schematic presentation of the proposed treatment system, including all processes.
2. Descriptions of the nature and concentration of any chemical additive used for treatment must be included. If the proposed treatment system uses activated carbon, submit an estimate of the breakthrough time for each carbon treatment unit. If the operations and maintenance include backflushing, or other required treatment for maintenance, then a full description of any discharges associated with these procedures must be included.
3. An estimate of the average, maximum and any variation in flows, as well as the design flows (hydraulic and treatment) for the treatment system. All necessary sizing calculations to accommodate the treatment volume must be included.

4. An operation plan describing general operations, maintenance procedures and process controls. Information on the provisions for stand-by power must be provided.
5. A description of the proposed performance monitoring system utilized to determine that the treatment and disposal system is in compliance with WDRs.
6. A spill plan including the preventive and contingency measures for controlling accidental discharges and for minimizing the effect of such an event.
7. Information required to assess protection of the facility from floods and frost.
8. A narrative and schematic description of the proposed extraction system. A discussion of the number, location and pumping rates of the extraction wells.

E. Site Hydrogeology and Characterization of Pollution

1. Depth to ground water, including seasonal variations.
2. Direction and gradient of ground water flow.
3. locations of any known geologic features (e.g. aquitards, subterranean channels, faults, etc.) which could affect pollution migration.
4. Information on the locations, construction, design and analytical results from monitoring wells used to define the lateral and vertical extent of the plume and wells used to monitor the effectiveness of the cleanup.
5. Aquifer characteristics (e.g., hydraulic conductivity, porosity, etc.) determined from a sufficient number of locations by aquifer tests, soil borings, geophysics, etc.
6. Ground water modeling results including calculations and results for extraction system spacings, pumping/collection rates, injection system spacings and injection/infiltration rates.
7. Location, construction and design details of extraction and injection systems (drilling methods, well designs, trench designs, etc.).

F. Receiving Water

1. Provide information on the water quality of the receiving water. Analytical results should be provided for all constituents found in the waste stream as listed under B.1 above. Additional analysis may be requested by Board staff.

2. Descriptions of the direction and magnitude of flows. Sources and seasonal flow variations for surface water and irrigation supply must be provided.
3. For discharges to surface water the following must be provided:
 - a. Conduct an analysis of the impact of the wastewater discharge on the DO content and temperature of the surface receiving water. Calculations should be performed for the range of dilution and temperature conditions expected to be found in the receiving waters. All assumptions should be stated and a sample calculation should be included.
 - b. Chronic toxicity testing (EPA/600-4-85-014 and EPA/440/4-85-032) using a dilution series with water from the surface receiving water source.

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. 98-67
NPDES No. CAG998001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO SURFACE
WATERS WHICH POSE AN INSIGNIFICANT (DE MINIMUS) THREAT TO WATER
QUALITY

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. On July 16, 1993, the Board adopted Order No. 93-49, NPDES No. CA8000234¹ prescribing waste discharge requirements for various types of waste discharges posing an insignificant threat to water quality. The types of discharges regulated under Order No. 93-49 include:
 - a. Construction dewatering wastes;
 - b. Wastes associated with well installation, development, test pumping and purging;
 - c. Aquifer testing wastes;
 - d. Dewatering wastes from subterranean seepage; and
 - e. Wastewater from hydrostatic testing.
2. On March 8, 1996, the Board adopted Order No. 96-17, amending Order No. 93-49 to include the following specific types of waste discharges (hereinafter de minimus discharges):
 - a. Construction dewatering wastes;
 - b. Wastes associated with well installation, development, test pumping and purging;
 - c. Aquifer testing wastes;
 - d. Dewatering wastes from subterranean seepage, except for discharges from utility company vaults;
 - e. Discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.;
 - f. Discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.;
 - g. Discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.;
 - h. Discharges from potable water supply systems resulting from system failures, pressure releases, etc.;
 - i. Discharges from fire hydrant testing or flushing;

¹ The NPDES number was later changed to CAG998001

- j. Non-contact cooling water;
 - k. Air conditioning condensate;
 - l. Swimming pool drainage;
 - m. Discharges resulting from diverted stream flows; and
 - n. Other similar types of wastes which pose a de minimus threat to water quality yet technically must be regulated under waste discharge requirements.
3. Order No. 93-49, as amended, satisfied all the criteria cited in 40 CFR² 122.28 and as such, was classified as a General NPDES Permit. 40 CFR 122.28 pertains to the issuance of general permits to regulate discharges of waste which meet the following criteria:
- a. Involve the same or substantially similar types of operations;
 - b. Are of the same types;
 - c. Require the same effluent limitations or operating conditions;
 - d. Require the same or similar monitoring; and
 - e. Are more appropriately regulated under a general permit rather than individual permits.
4. Order No. 93-49, as amended, has expedited the processing of numerous applications for waste discharge requirements and the early implementation of projects requiring waste discharge requirements. The general NPDES permit has allowed the Regional Board to better utilize limited staff resources.
5. Order No. 93-49, as amended, expired on July 1, 1998. To date, 78 dischargers have been authorized to discharge wastewater under the general permit and 58 dischargers are still active. Most of these authorized dischargers will wish to continue their coverage under the general permit. Approximately 16 new applications for coverage under the general permit are received each year. Therefore, renewal of this general permit is necessary to expedite the permitting process.
6. A revised Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region.
7. The existing and potential beneficial uses of surface waters in the Santa Ana Region include:
- a. Agricultural Supply,
 - b. Cold Freshwater Habitat,
 - c. Commercial and Sportfishing,
 - d. Estuarine Habitat,

² CFR is the Code of Federal Regulations

- e. Groundwater Recharge,
 - f. Hydropower Generation,
 - g. Industrial Service Supply,
 - h. Industrial Process Supply,
 - i. Limited Warm Freshwater Habitat,
 - j. Marine Habitat,
 - k. Municipal and Domestic Supply,
 - l. Navigation,
 - m. Non-contact Water Recreation,
 - n. Preservation of Biological Habitats of Special Significance,
 - o. Rare, Threatened or Endangered Species,
 - p. Shellfish Harvesting,
 - q. Spawning, Reproduction, and Development,
 - r. Water Contact Recreation,
 - s. Warm Freshwater Habitat, and
 - t. Wildlife Habitat.
8. Many surface waters within the region recharge underlying groundwater basins. The existing and potential beneficial uses of groundwater within the Santa Ana Region include:
- a. Municipal and Domestic Supply,
 - b. Agricultural Supply,
 - c. Industrial Service Supply, and
 - d. Industrial Process Supply.
9. The requirements contained in this general permit are necessary to implement the Basin Plan.
10. In accordance with Section 303(d) of the Clean Water Act (CWA), the Regional Board listed San Diego Creek and Newport Bay as water quality limited due to excessive nutrient input. On April 17, 1998, the Regional Board adopted a Basin Plan amendment (Resolution No. 98-9), incorporating a San Diego Creek/Newport Bay Watershed Nutrient Total Maximum Daily Load (TMDL). The Basin Plan amendment will become effective upon approval by the State Water Resources Control Board and the Office of Administrative Law. The TMDL specifies loading targets for both nitrogen and phosphorus and includes allocations of those loads among point and nonpoint sources. Implementation of the TMDL is intended and expected to assure compliance with water quality objectives and the protection of beneficial uses.

11. In accordance with the approved Nutrient TMDL (Part 2b. Phase 1 of the Nutrient TMDL, Section 3, Revision of Existing Waste Discharge Requirements, Paragraph c.,) this general permit requires discharges from construction dewatering wastes, wastes associated with well installation, development, test pumping and purging, aquifer testing wastes, dewatering wastes from subterranean seepage (as listed in Finding 2.a through 2.d., above) and similar wastes discharging into the San Diego Creek/Newport Bay watershed to be monitored for total nitrogen and phosphorus. These data will be used to develop appropriate wasteload allocations for these discharges. (De minimus discharges as listed in Finding 2.e. through Finding 2.n., above, are not expected to contain any appreciable amount of phosphorus or nitrogen; therefore, monitoring for these constituents is not necessary for these type of discharges). (see Attachment B for San Diego Creek/Newport Bay Watershed Map).
12. This general permit does not preempt or supersede the authority of municipalities, flood control agencies, or other local agencies to prohibit, restrict, or control discharges of waste to storm drain systems or other water courses subject to their jurisdiction.
13. This general permit regulates de minimus discharges (as listed in Findings No. 2., above) to surface waters. Entity(ies)/individual(s) proposing de minimus discharges are hereinafter referred to as “*discharger*” and are subject to the terms and conditions of this general permit.
14. For coverage under this general permit, a discharger is required to submit a completed Notice of Intent Form (see Attachment A of this Order) together with other information required in Section H. "APPLICATION REQUIREMENTS:" and to receive approval from the Executive Officer. If the proposed discharge meets the requirements of this general permit, the Executive Officer will provide the discharger with a written authorization to initiate the discharge. If not, an individual NPDES permit will be developed for consideration by the Regional Board.
15. Any discharger proposing de minimus discharges at multiple locations within the Santa Ana Region may be covered under one discharge authorization letter on a case by case basis, subject to the approval of the Executive Officer.
16. The Executive Officer may require any discharger authorized under this general permit to apply for and obtain an individual NPDES permit. Cases where an individual NPDES permit may be required include the following:
 - a. The discharger is not in compliance with the conditions of this general permit or the discharge authorization letter from the Executive Officer;
 - b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

- c. Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;
 - d. Changes to the water quality control plan containing requirements applicable to such point sources are approved;
 - e. The requirements of 40 CFR 122.28 (a) are not met; or
 - f. The discharge may adversely affect the water quality objectives of the receiving water.
- 17. De minimus discharges complying with the provisions and requirements of this general permit are not expected to violate the applicable water quality standards.
 - 18. The de minimus discharges described in Finding No. 2 above are not expected to cause toxicity, therefore no toxicity limits are specified in this general permit.
 - 19. Effluent limitations and national standards of performance established pursuant to Section 301, 302, 303(d), 304, 306, and 307 of the Federal CWA and amendments thereto are applicable to this type of discharges.
 - 20. On June 8, 1989, pursuant to 40 CFR 122.28, the State Water Resources Control Board (hereinafter State Board), applied to the Environmental Protection Agency (hereinafter EPA) for revisions of its NPDES program in accordance with 40 CFR 123.62 and 403.10. The application included a request to add general permit authority to its approved NPDES program. On September 22, 1989, Region IX EPA approved the State Board's request and granted authorization for the State's issuance of general NPDES permits.
 - 21. The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16 and finds that de minimus discharges are consistent with those provisions.
 - 22. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for de minimus discharges is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (Commencing with Section 21100), Division 13 of the Public Resources Code.
 - 23. The Regional Board has notified interested agencies and persons of its intent to issue general waste discharge requirements for de minimus discharges, and has provided them with an opportunity to submit their written views and recommendations.
 - 24. The Regional Board, in a public meeting, heard and considered all comments pertaining to general waste discharge requirements for de minimus discharges.

IT IS HEREBY ORDERED that dischargers, their agents, successors, and assigns, who are discharging the types of wastes listed in Findings No. 2, above, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS:

1. The discharge of wastewater shall not contain constituent concentrations in excess of the following limits:

Constituents	Maximum Concentration
Oil and Grease	15 mg/l
Sulfides	0.4 mg/l
Total Residual Chlorine ^{3, 4}	0.1 mg/l
Total Suspended Solids ⁴	75 mg/l
Total Petroleum Hydrocarbons	100 µg/l (ppb)

2. The pH of the discharge shall be within 6.5 and 8.5 pH units.
3. There shall be no visible oil and grease in the discharge.

B. RECEIVING WATER LIMITATIONS:

1. The discharge of wastes shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board, as required by the Federal CWA and regulations adopted thereunder.
2. The discharge shall not cause any of the following:
 - a. Coloration of the receiving waters which causes a nuisance or adversely affect beneficial uses.
 - b. Result in deposition of oil, grease, wax or other materials in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

³ Compliance shall be determined at a point before wastewater mixes with any receiving water.

⁴ Not applicable if all wastewater will percolate prior to reaching any receiving water.

- c. The increase in the amounts of suspended or settleable solids of the receiving waters which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.
- d. Contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses.
- e. The presence of radioactive materials in concentrations which are deleterious to human, plant or animal life.
- f. The depletion of the dissolved oxygen concentration below 5.0 mg/l in the receiving water. In addition, the waste discharge shall not cause the median dissolved oxygen concentration to fall below 85% of saturation or the 95th percentile concentration to fall below 75% of saturation within a 30-day period.
- g. Raise the temperature of the receiving waters above 90°F (32°C) which normally occurs during the period of June through October, or above 78°F (26°C) during the rest of the year.
- h. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.

C. PROHIBITIONS:

- 1. The discharge of oil, trash, industrial waste sludge, or other solids directly to the surface waters in this region or in any manner which could ultimately affect surface waters in this region is prohibited.
- 2. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.
- 3. Odors, vectors, and other nuisances of waste origin are prohibited beyond the limits of each discharger's facility.
- 4. Unless approved by the Executive Officer, the addition of chemicals to the discharge is prohibited.

D. PROVISIONS:

- 1. Neither the treatment or discharge of pollutants shall create a nuisance or pollution as defined by Section 13050 of the California Water Code.

2. This general permit shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal CWA or amendments thereto. This general permit shall become effective 10 days after the date of its adoption provided the Regional Administrator of the Environmental Protection Agency has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.
3. This general permit expires on July 1, 2003. However, it shall continue in force and effect until a new general permit is issued. Only those dischargers authorized to discharge under the expiring general permit will be regulated by the continued general permit. Upon reissuance of a new general permit, the dischargers shall file a notice of intent within 45 days of the effective date of the new general permit and obtain a new authorization to discharge from the Executive Officer.
4. Upon receipt of an application to discharge waste under this general permit, the Executive Officer shall determine whether the proposed discharge is eligible for coverage under this general permit, after which, the Executive Officer shall;
 - a. Authorize the proposed discharge by transmitting a "Discharge Authorization Letter" to the discharge proponent (now an "authorized discharger") or,
 - b. Require the discharge proponent to obtain an individual NPDES permit prior to any discharge to surface waters within the Santa Ana Region.
5. The discharge authorization letter from the Executive Officer shall:
 - a. Authorize the initiation of the proposed discharge under the terms and conditions of this Order,
 - b. Include a Monitoring and Reporting Program developed for the proposed discharge.

The discharge authorization letter may be terminated or revised by the Executive Officer at any time.
6. The Executive Officer is authorized to issue a single discharge authorization letter to a discharger proposing unknown future de minimus discharges at multiple locations within the Santa Region, provided that the general nature of the discharges and the general locations are reported and included in the application to discharge wastes under this general permit and that at least five days prior to each discharge, more detailed information regarding each discharge is reported.

7. Monitoring and Reporting Program No. 98-67 included with this general permit shall serve as a template for the Monitoring and Reporting Program (M&RP) to be issued by the Executive Officer to each discharger authorized under this general permit. Revision of the M&RP by the Executive Officer may be necessary to confirm that the discharger is in compliance with the requirements and provisions contained in this general permit. Revision may be made at any time during the term of the discharge authorization, and may include a reduction or an increase in the number of parameters to be monitored, the frequency of monitoring or the number and size of samples collected.
8. De minimis discharges from construction dewatering wastes, wastes associated with well installation, development, test pumping and purging, aquifer testing wastes, dewatering wastes from subterranean seepage (as listed in Finding 2.a through 2.d., above) and similar wastes discharging into the San Diego Creek/Newport Bay watershed shall be monitored for total nitrogen and phosphorus.
9. The discharger shall comply with all requirements of this general permit, the terms, conditions and limitations of the discharge authorization letter; and the Monitoring and Reporting Program issued by the Executive Officer.
10. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
11. The discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any discharge limitations specified in this general permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
12. The discharger shall comply with discharge standards or prohibitions established under section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this general permit has not yet been modified to incorporate the requirement.
13. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
14. The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provisions of this general permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this general permit shall not be affected thereby.
15. This general permit does not convey any property rights of any sort, or any exclusive privilege.

16. An authorization to discharge wastes under this general permit is not transferable to any person except after notice to and approval by the Executive Officer.
17. Any violation of this general permit constitutes a violation of the CWA, its regulations, and the California Water Code, and is grounds for enforcement action and/or termination of the authorization to discharge.
18. Any permit noncompliance constitutes a violation of the CWA and the California Water Code and is grounds for enforcement action; for permit or authorization letter termination, revocation and reissuance, or modification; the issuance of an individual permit; or for denial of a renewal application.
19. Compliance determinations shall be based on available analyses for the time interval associated with the discharge limitation. Where only one sample analysis is available in a specified time interval (e.g., weekly, monthly), that sample shall serve to characterize the discharge for the entire interval.
20. The Regional Board, EPA, and other authorized representatives shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this general permit;
 - b. Access to copy any records that are kept under the conditions of the general permit;
 - c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and
 - d. To photograph, sample and monitor for the purpose of assuring compliance with this general permit, or as otherwise authorized by the CWA.

E. PERMIT REOPENING, REVISION, REVOCATION, AND RE-ISSUANCE:

1. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, or amendments thereto, the Board will revise and modify this general permit in accordance with such standards.
2. This general permit may be reopened to address any changes in State or federal plans, policies or regulations which would affect the quality requirements for the discharges.
3. This general permit may be modified by the Regional Board prior to the expiration date to include discharge or receiving water limitations for toxic constituents determined to be present in significant amounts in the discharge through the comprehensive monitoring program included as part of this general permit.

4. This general permit may be modified, revoked and reissued, or terminated for cause.

F. PENALTIES:

1. The CWA provides that any person who violates a provision implementing sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates provisions implementing these sections of the CWA is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.
2. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
3. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
4. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day, or \$20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

G. REQUIRED REPORTS AND NOTICES:

1. Reporting Provisions:
 - a. All applications, reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22.
 - b. Any discharger authorized to discharge waste under this general permit shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating their authorization or this general permit. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this general permit.
 - c. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with the terms of this general permit shall be

available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of EPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Section 13387 of the California Water Code.

2. The discharger shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with these waste discharge requirements.
3. In the event of any change in control or ownership of land or waste discharge facilities currently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of their authorization to discharge wastewater under this general permit by letter, a copy of which together with the signed agreement between previous owner and the new owner accepting responsibility and liability for complying with this general permit shall be forwarded to the Executive Officer.
4. Upon completion of the project, the discharger shall notify the Executive Officer of the Regional Board in writing about cessation of the discharge and shall request for termination of coverage under this general permit.

H. APPLICATION REQUIREMENTS:

1. Dischargers already covered under Order No. 93-49 and those dischargers under individual permits who wish to be and believe they can and should be covered under this renewed general permit shall submit a completed Notice of Intent Form (see Attachment A of Order No. 98-67) within 45 days of adoption of this general permit. In addition, those dischargers who want to request a modification to the Template Monitoring and Reporting Program shall specifically state the modification being requested and shall submit information/justification supporting their request. The Executive Officer may also require the discharger to submit additional information about any recent change in ownership of facility, changes in the character and treatment of the discharges and any other relevant information that will update facility information which are on the Regional Board files.
2. **FOR A NEW DISCHARGER⁵:** At least 60 days before the start of a discharge, the discharger shall submit an application and obtain the authorization letter from the Executive Officer to discharge wastewater. The application shall consist of the following information:

⁵ *New discharger is an entity/individual who is not currently authorized to discharge waste under this general permit and who is proposing de minimis discharges to be covered under this general permit.*

- a. Completed Notice of Intent Form (see Attachment A of this Order).
- b. For projects involving well development, well purging and groundwater extraction, a site characterization study report defining the proximity of the extraction well to known contaminated sites, the presence of contaminated groundwater onsite, contaminants and their properties, and a three dimensional assessment of the extent and concentration of contaminants in the subsurface. The study report shall include a description of the geologic and hydrologic factors that control the migration of the contaminants. It shall also include a list of known or suspected leaking underground tanks and other facilities or operations which have, or may have impacted the quality of the underlying groundwater within 200 feet of the site.
- c. A report which shall include the following:
 - 1) Characterization of the proposed wastewater discharge;
 - 2) The estimated average and maximum daily flow rates;
 - 3) The frequency and duration of the discharge;
 - 4) The affected receiving water(s);
 - 5) A description of the proposed treatment system (if appropriate); and
 - 6) A map showing the path from the point of initial discharge to the ultimate location of discharge;
- d. Any other information deemed necessary by the Executive Officer.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an general permit adopted by the California Regional Water Quality Control Board, Santa Ana Region, on July 10, 1998.

Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

Template Monitoring and Reporting Program No. 98-67
NPDES NO. CAG998001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO SURFACE
WATERS WHICH POSE AN INSIGNIFICANT (DE MINIMUS) THREAT TO WATER
QUALITY

I. MONITORING AND REPORTING REQUIREMENTS:

Monitoring and reporting shall be in accordance with the following:

1. All monitoring reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22.
2. All sampling, sample preservation, and analysis shall be performed in accordance with the latest edition of 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants", promulgated by the United States Environmental Protection Agency, unless otherwise noted. In addition, the Board and/or EPA, at their discretion, may specify test methods which are more sensitive than those specified in 40 CFR 136.
3. All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or EPA or at laboratories approved by the Executive Officer of the Regional Board.
4. All analytical data shall be reported with method detection limits (MDLs) and with identification of either practical quantitation levels (PQLs) or limits of quantitation (LOQs).
5. Whenever the discharger monitors any pollutant more frequently than is required by this general permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.
6. The discharger shall deliver a copy of each monitoring report in the appropriate format to:

**California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348**

7. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Board at any time. Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling, and/or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used;
 - f. All sampling and analytical results;
 - g. All monitoring equipment calibration and maintenance records;
 - h. All original strip charts from continuous monitoring devices;
 - i. All data used to complete the application for this general permit; and,
 - j. Copies of all reports required by this general permit.
7. Weekly samples shall be collected on a representative day of each week.
 8. Monthly samples shall be collected on a representative day of the month.
 9. Quarterly samples shall be collected on a representative day of March, June, September, and December.
 10. Semi-Annual samples shall be collected at the initiation of the project for the first sample and during January and July thereafter.
 11. Annual samples shall be collected on the month the discharge authorization letter was issued.

II. EFFLUENT MONITORING:

1. A sampling station shall be established for the point of discharge where representative samples of the discharge can be obtained before the discharge mixes with the receiving waters.
2. The following shall constitute the effluent monitoring program:

CONSTITUENT	TYPE OF SAMPLE	UNITS	MINIMUM FREQUENCY OF SAMPLING AND ANALYSIS
Flow	-----	gpd	Daily
Oil and Grease	Grab	mg/l	During the first 30 minutes of each discharge and as directed by the Executive Officer, thereafter
Sulfides	Grab	mg/l	"
Total Residual Chlorine ^{1, 2}	Grab	mg/l	"
Total Suspended Solids ²	Grab	mg/l	"

¹ Unless it is known that chlorine is not in the discharge.

² Not applicable if all wastewater will percolate prior to reaching receiving waters.

CONSTITUENT	TYPE OF SAMPLE	UNITS	MINIMUM FREQUENCY OF SAMPLING AND ANALYSIS
Total Dissolved Solids (TDS)	Grab	mg/l	During the first 30 minutes of each discharge and as directed by the Executive Officer, thereafter
Phosphorus ³	Grab	mg/l	"
Total Nitrogen ³	Grab	mg/l	"
Total Petroleum Hydrocarbons	Grab	µg/l	"

III. REPORTING:

1. Five days prior to any discharge from locations already reported, the discharger shall notify the Regional Board staff by phone or by a fax letter indicating the date and time of the proposed discharge.
2. Five days prior to any planned discharge⁴ from locations not yet reported, the discharger shall notify the Regional Board staff by phone or by a fax letter indicating the following:
 - 1) Specific type of the proposed wastewater discharge (see listing on Finding 2 of the Order);
 - 2) The estimated average and maximum daily flow rates;
 - 3) The frequency and duration of the discharge;
 - 4) The affected receiving water(s);
 - 5) A description of the proposed treatment system (if appropriate); and
 - 6) A description of the path from the point of initial discharge to the ultimate location of discharge (fax a map if possible);
3. Monitoring reports shall be submitted by the 30th day of each month.. The monitoring reports shall cover the previous month's monitoring activities and shall include:
 - a. The results of all laboratory analyses for constituents required to be monitored (see Section II. above),

³ *Applicable only to discharges from construction dewatering wastes, wastes associated with well installation, development, test pumping and purging, aquifer testing wastes, dewatering wastes from subterranean seepage and similar wastes discharging into the San Diego Creek/Newport Bay watershed.*

⁴ *For those unplanned discharges, as much prior notification as possible is required before any discharge is initiated.*

- b. The daily flow data,
 - c. A summary of the discharge activities (when and where discharged occurred, description of type of discharge, etc.) including a report detailing the discharger's compliance or noncompliance with the requirements of the general permit and discharge authorization letter, and
 - d. For every item where the requirements of the general permit and discharge authorization letter are not met:
 - 1) a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and
 - 2) a timetable for implementing the proposed actions.
 - e. If no discharge occurs during the previous monitoring period, a letter to that effect shall be submitted in lieu of a monitoring report.
4. All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted under penalty of perjury.

Ordered by: _____
Gerard J. Thibeault
Executive Officer

July 10, 1998

California Regional Water Quality Control Board
Santa Ana Region

NOTICE OF INTENT

TO COMPLY WITH THE TERMS AND CONDITIONS OF THE GENERAL PERMIT TO DISCHARGE
WASTEWATER WHICH POSES INSIGNIFICANT THREAT TO WATER QUALITY

(Order No. 98-67, NPDES No. CAG998001)

I. PERMITTEE (*Person/Agency Responsible for the Discharge*)

Agency/Company Name: _____

Address: _____

Street *City* *State* *ZIP*
Contact Person: _____ Phone: _ (____) _

II. FACILITY

Name: _____

Location: _____

Street *City* *State* *ZIP*
Contact Person: _____ Phone: _ (____) _

III. BILLING INFORMATION (*Where annual fee invoices should be sent*)

Agency/Company Name: _____

Address: _____

Street *City* *State* *ZIP*
Contact Person: _____ Phone: _ (____) _

IV. INDICATE EXISTING PERMIT NUMBER: (*if applicable*)

a. Individual permit Order No. _____ NPDES No. _____

b. General Permit Order No. 93-49- _____

V. CERTIFICATION:

I certify under penalty of law that I am an authorized representative of the permittee and that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the permittee will comply with the terms and conditions stipulated in Order No. 98-67 including the monitoring and reporting program issued by the Executive Officer of the Regional Board.

Name and Official Title: _____
(type or print)

Signature: _____ Date: _____

Remarks: *If changes to facility ownership and/or treatment processes were made after the issuance of the existing permit, please provide a description of such changes on another sheet and submit it with this Notice of Intent.*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 2000-90
NPDES NO. CAG919001
GENERAL
WASTE DISCHARGE REQUIREMENTS
FOR
TEMPORARY GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES
TO
SAN DIEGO BAY AND STORM DRAINS OR OTHER CONVEYANCE SYSTEMS
TRIBUTARY THERETO

TABLE OF CONTENTS

Findings.....	2
A. Prohibitions.....	11
B. Discharge Specifications.....	12
C. Receiving Water Limitations.....	14
D. Provisions.....	17
E. Reporting Requirements.....	27
F. Notifications.....	33
G. Endnotes for Order No. 2000-90.....	35
Monitoring and Reporting Program No. 2000-90	
A. Purpose.....	40
B. Monitoring Provisions.....	40
C. Treatment System Status.....	42
D. Discharge Monitoring-Long Term.....	42
E. Discharge Monitoring-Short Term.....	44
F. Discharge monitoring-Sewer replacement.....	45
G. Biomonitoring.....	46
H. Toxicity Reduction Evaluation (TRE)	46
I. Receiving Water Monitoring	47
J. Sediment Monitoring.....	47
K. Annual Summary of Data.....	47
L. Provisions.....	47
M. Reporting Frequency.....	48
Endnotes for Monitoring and Reporting Program Order No. 2000-90.....	49
Attachment A-Enclosed Bays and Estuaries Policy Discharge Prohibitions.....	50
Attachment B- Basin Plan Waste Discharge Prohibitions.....	51
Attachment C - Standard Provisions.....	53

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On April 23, 1990, this Regional Board adopted Order No. 90-31, National Pollutant Discharge Elimination System (NPDES) No. CA0108707, "General Waste Discharge Requirements for Groundwater Dewatering Waste Discharges to San Diego Bay or Tributaries Thereto, San Diego County." Order No. 90-31 and Technical Change Order No. T-1 thereto, contain an expiration date of April 23, 1995.
2. On September 26, 1991, the State Water Resources Control Board (SWRCB) adopted Order No. WQ91-10 which amended Regional Board Order No. 90-31.
3. On May 16, 1995, this Regional Board adopted Order No. 95-25, NPDES No. CAG919001, "General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto, San Diego County." Order No. 95-25 superseded Order No. 90-31.
4. NPDES Regulations, 40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same type of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.
5. This Order establishes a general permit regulating the discharge of groundwater extraction waste discharges to San Diego Bay from all construction dewatering, and groundwater remediation projects. All discharge flow rate volumes are subject to the terms and conditions of this Order.
6. Groundwater extraction waste discharges pose the threat of discharging pollutants which may be present in groundwaters surrounding San Diego Bay as a result of many past activities, including leaking underground storage tanks and fuel lines, surface spills of wastes, and past use of liquid waste impoundments.
7. The capacity of San Diego Bay to assimilate pollutants is limited. In order to protect the beneficial uses of San Diego Bay waters from excessive loading of pollutants as a result of escalating numbers of waste discharges to San Diego Bay, **this Order prohibits groundwater extraction waste discharges to San Diego Bay from new permanent¹ groundwater extraction operations.** The prohibition of discharges from new permanent groundwater extraction operations to San Diego Bay will reduce the potential number and duration of discharges to San Diego Bay as intended by the federal Clean Water Act (Section 101(a)(1)) and the Water Quality Control Policy for Enclosed Bays and Estuaries of California.

8. All groundwater extraction waste discharges currently regulated by Regional Board Order No. 95-25 shall be regulated under the terms and conditions of this Order. As of the date of adoption of this Order, the three existing Permanent Groundwater Extraction Discharges enrolled under this general permit are as follows:
 1. City of San Diego, San Diego Convention Center permanent dewatering system
 2. Embassy Suites Hotel (San Diego) permanent dewatering system; and
 3. Great American Plaza (San Diego) permanent dewatering system
9. In order to minimize potential impacts from groundwater extraction waste discharges on the beneficial uses of San Diego Bay, this Order requires the application of best available technology economically achievable (BAT)² for the removal of organic pollutants commonly found in petroleum polluted groundwaters. Discharges in compliance with BAT-based effluent limitations contained in Discharge Specification No. B.I of this Order are not expected to have a measurable impact on the beneficial uses of San Diego Bay as a result of the discharge of petroleum related compounds since the effluent limitations for these compounds are equal to the practical quantitation level. Such compounds will essentially be nondetectable in discharges of groundwater dewatering waste to San Diego Bay.
10. Any discharge of untreated groundwater to San Diego Bay threatens to cause or contribute to excursions above narrative water quality objectives contained in the Basin Plan as a result of the potential discharge of petroleum related compounds, solvents, and metals. On May 26, 1989, the United States Environmental Protection Agency, (USEPA) enacted revisions to NPDES program regulations (40 CFR 122). When a proposed discharge of a compound or chemical threatens to cause or contribute to an excursion above a State narrative water quality standard and a numeric water quality standard for the specific chemical has not been established, the NPDES program regulations require³ the Regional Board to 1) establish effluent limitations using a proposed State water quality objective or standard or an explicit State policy or regulation interpreting its narrative water quality objective which will protect and maintain water quality and designated beneficial uses of the receiving water, 2) establish effluent limitations on a case-by-case basis, using USEPA's water quality criteria published under 307(a) of the federal Clean Water Act, or 3) establish effluent limitations on an indicator parameter for the pollutants of concern.
11. Since water quality criteria for many petroleum hydrocarbon compounds have not been proposed or established by the State or the USEPA, this Order establishes effluent limitations for "indicator constituents" of complex mixtures of petroleum related compounds such as gasoline and diesel fuels. This Order uses benzene, toluene, ethylbenzene, xylene (BTEX) and total petroleum hydrocarbons (TPH) as "indicator constituents" for petroleum related compounds. This Order establishes effluent limitations and monitoring requirements for BTEX and TPH which will ensure that volatile petroleum related compounds will be removed from the waste stream. This Order also establishes effluent limitations and monitoring requirements for indicator constituents of diesel fuels (TPH-diesel)⁵ commonly found in polluted groundwaters.

12. It has been demonstrated that volatile pollutants (e.g., benzene, toluene, ethylbenzene, xylene, etc.) and many other organic pollutants in groundwater can be reduced to less than current analytical detection limits (0.5 to 10 micrograms per liter ($\mu\text{g/L}$)) in effluents using available standard treatment technologies^{4,6}, Section 402(a)(1) of the Clean Water Act authorizes the issuance of best available technology (BAT)² effluent limitations in NPDES permits using best professional judgement (BPJ). Thus, BAT (best available technology economically achievable) for the removal of organic compounds is the basis for effluent limitations for BTEX and other volatile hydrocarbons, and base/neutral compounds (volatile hydrocarbons and base/neutral compounds are listed in 40 CFR 136) in Discharge Specification No. B.I of this Order. Establishing an effluent limitation of 5 $\mu\text{g/L}$ for benzene ensures that other volatile organic compounds of concern will be equally limited as well since benzene is more water soluble and less volatile than the majority of the volatile compounds of concern and has a lower adsorption capacity for granular activated carbon. Therefore, benzene is usually the most difficult compound to remove from a waste stream - the remaining compounds of concern will be sufficiently removed if benzene is removed from the waste stream, whether treatment consists of aeration, adsorption, or a combination of the two processes.
13. On January 1, 1998, Senate Bill (SB) 521 was passed. SB521 adds language to the Health & Safety Code which is applicable to leaking underground storage tanks as follows: "Section 25299.37.1. No closure letter pursuant to this chapter shall be issued unless the soil or groundwater, or both, where applicable, at the site have been tested for Methyl Tertiary Butyl Ether (MTBE) and the results of that testing are known to the Regional Board." Subsequently, on February 20, 1998, the San Diego Regional Board, Site Mitigation & Cleanup Unit, issued written notification to interested parties of Mandatory MTBE Sampling For Underground Storage Tank (UST) Site Closures-Senate Bill (SB) 521. The February 20, 1998 notification specifies that "For ground water impacted sites or soil sites that may threaten ground water, both soil and ground water sampling and analysis for MTBE will be required." The Porter-Cologne Water Quality Control Act (January 1, 2000), Sections 13272.1 and Section 13285 address discharges of MTBE. The California Department of Health Services (DHS) last update (March 9, 2000) of California's Maximum Contaminant Levels for MTBE states the following:
- "DHS proposed a 13 $\mu\text{g/L}$ primary MCL for MTBE in September 1999, and the 45 day public comment period closed on November 1, 1999. DHS reviewed the comments it received, and made no changes in the proposed regulation subsequent to public comments. The MTBE regulation package is under its 30 day review at the Office of Administrative Law (OAL). If OAL approves the regulation, it will be forwarded to the Secretary of State, and become effective 30 days later (May 18, 2000). Until the primary MCL is adopted, DHS will continue to use its 13 $\mu\text{g/L}$ action level to protect against health effects associated with MTBE in drinking water. The secondary MCL for MTBE is 5 $\mu\text{g/L}$, effective January 7, 1999".

14. On July 16, 1998, USEPA granted approval for the San Diego Unified Port District to use EPA Method 1638, and EPA Method 1640 (Clean Technologies) for analysis of metals for NPDES compliance samples taken from the San Diego Convention Center's groundwater extraction waste discharge. The Regional Board concurred with this approval. The groundwater discharge from the San Diego Convention Center is blend of freshwater from the groundwater table, and salt water infiltration from San Diego Bay. The salinity of the Convention Center discharge ranges between 27 and 35 parts per million (ppm). The 1638/1640 Methods are appropriate for saline samples. Prior to the approval, the San Diego Unified Port District used EPA Method 200.7, which is appropriate for freshwater samples. The 200.7 Method yielded results which caused the Convention Center discharge to be in noncompliance with its permit limits most of the time. Since the Port District began use of Methods 1638/1640, the Convention Center discharge has been in compliance with its permit limits most of the time.

Future enrollees under this general permit, that are in close proximity of San Diego Bay, may encounter saline groundwater, in which case the use of Methods 1638/1640 would be appropriate for the analysis of metals.
15. On April 28 2000, the USEPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California. USEPA promulgated this rule based on the administrator's determination that the numeric criteria are necessary in the State of California to protect human health and the environment. USEPA promulgated this rule to fill a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the Clean Water Act, necessitating this action by USEPA. These Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the Clean Water Act.
16. On June 17, 1999 the State Water Resources Control Board adopted the Consolidated Toxic Hot Spot Cleanup Plan (Consolidated Plan) required under Bay Protection and Toxic Cleanup Program (CWC Section 13395). The Consolidated Plan listed known toxic hot spots, including several located in San Diego Bay. The Consolidated Plan also requires Regional Boards to reevaluate waste discharge requirements for those discharges associated with each known toxic hot spot that can reasonably be expected to cause or contribute to the creation and maintenance of the known toxic hot spot. The San Diego Regional Board finds that discharges from groundwater extraction (dewatering) activities may contribute to the pollution present at the toxic hot spots listed in the Consolidated Plan. In the event that future groundwater extraction waste discharges are proposed to an area of San Diego Bay that is designated as a toxic hot spot, staff will at that time, review both the Discharge Specifications and the Monitoring and Reporting Programs for appropriate modification(s).
17. In establishing effluent limitations based on BAT, the Regional Board has taken into

consideration the following factors:

- a. The appropriate technology for the category or class of which the discharger is a member;
 - b. The age of equipment and facilities involved;
 - c. The process employed;
 - d. The engineering aspects of the application of various types of control techniques;
 - e. Process changes;
 - f. The cost of achieving such effluent reduction;
 - g. Non-water quality environmental impact (including energy requirements); and
 - h. Known and potential groundwater contaminants in the vicinity of groundwater extraction operations covered under this Order.
18. Discharge specifications contained in this Order for settleable solids, total suspended solids, hydrogen sulfide, and toxicity are based on best professional judgement (BPJ). Discharge specifications for pH, and total residual chlorine (TRC), metals, polychlorinated biphenyls (PCB), and phenols (chlorinated and nonchlorinated) were obtained from Tables A and B of the Water Quality Control Plan for Ocean Waters of California, 1997. Effluent limitations for TRC, metals, PCB, and phenols are equal to the water quality objectives listed in the Ocean Plan for each constituent since initial dilution is assumed to equal zero. It follows that since groundwater dewatering waste discharged to San Diego Bay must not contain pollutant concentrations in excess of water quality objectives prior to any dilution (mixing with receiving waters), the discharge of groundwater extraction waste in compliance with effluent limitations cannot cause excursions above the receiving water quality criteria established in this Order.
19. The effluent limitation for solvents in this Order are identical to the water quality objectives for solvents in the revised Statewide Water Quality Control Plan for Enclosed Bays and Estuaries of California (EBE Plan), adopted by the SWRCB on November 19, 1992 and since rescinded. As explained in the draft Functional Equivalent Document for the revised EBE Plan, dated March 27, 1992, water quality objectives for these constituents were based on USEPA Section 304(a) human health criteria modified by incorporating updated cancer potencies and reference doses. Although the EBE Plan has been rescinded, the approach used to develop water quality objectives was technically sound. Therefore, effluent limits for solvents identical to EBE Plan water quality objectives are included in this Order on the basis of best professional judgement (BPJ).

20. **The daily maximum discharge flowrate limitation for each discharge will be specified in the discharge authorization letter from the Executive Officer⁷.** Mass emission rate limitations will be determined using the authorized discharge flowrate and effluent concentration limitations specified in Discharge Specification B.I of this Order.
21. This general NPDES permit does not preempt or supersede the authority of other State or local agencies to prohibit, restrict, or control the discharge of groundwater extraction waste discharges from facilities subject to this permit in any manner subject to their authority. This Order does not apply to discharges regulated by a municipal stormwater permit. Discharges of groundwater via a storm drain conveyance system during dry weather has the potential to carry pollutants typically found in urban runoff (ie: coliform, heavy metals, pesticides, herbicides, oil & grease, petroleum products), that would normally remain in the storm drain system until the first significant rain event of the wet season, to a water of the state, thus creating a nuisance condition.
22. To obtain authorization to discharge under the terms and conditions of this Order, an applicant enrollee is required to include in the application the following information on the conveyance facilities used to route extracted groundwaters to San Diego Bay: 1) location and description of storm drain(s) or conveyance system(s) used to route discharge to San Diego Bay; 2) name of public agency or entity having jurisdiction of storm drain(s) or conveyance system(s) used to route discharge to San Diego Bay; and 3) proof of notification to the public agency or entity responsible for the storm drain(s) or conveyance system(s) of the discharge of extracted groundwater.
23. The SWRCB adopted the Water Quality Control Policy for Enclosed Bays and Estuaries of California (Bays and Estuaries Policy) on May 16, 1974. The policy established water quality principles, guidelines, effluent quality requirements and prohibitions to govern the disposal of wastes in the enclosed bays and estuaries of California.
24. Discharges of groundwater extraction waste could potentially conflict with Chapter I., Item Nos. C. 1 and 2 (Principals for Management of Water Quality in Enclosed Bays and Estuaries) and Discharge Prohibition No. 5 of the Bays and Estuaries Policy if such discharges contain pollutants in sufficient concentrations to adversely impact the beneficial uses of San Diego Bay. However, the discharge of groundwater extraction waste as limited by this Order does not conflict with the Water Quality Control Policy for the Enclosed Bays and Estuaries of California provided that each discharge of groundwater extraction waste complies with Discharge Specification No. B.I of this Order and the discharge is limited in duration.
25. The SWRCB adopted a revised Water Quality Control Plan for Ocean Waters of California (Ocean Plan) on July 23, 1997. The Ocean Plan identifies the following beneficial uses of state ocean waters to be protected:
 - a. Industrial water supply;

- b. Navigation;
- c. Aesthetic enjoyment;
- d. Water contact recreation;
- e. Non-contact water recreation;
- f. Ocean commercial and sport fishing;
- g. Mariculture;
- h. Preservation and enhancement of Areas of Special Biological Significance;
- i. Preservation and enhancement of rare and endangered species;
- j. Marine habitat;
- k. Fish migration;
- 1. Fish spawning; and
- m. Shellfish harvesting.

In order to protect the above beneficial uses, the Ocean Plan establishes water quality objectives (for bacteriological, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

- 26. Beneficial uses of San Diego Bay are similar to those of the ocean waters of the State. In order to protect the beneficial uses of San Diego Bay, discharge specifications and receiving water quality limitations, derived from Tables A and B of the Ocean Plan by applying the calculations and procedures found in the Ocean Plan, have been included in this Order.
- 27. The Comprehensive Water Quality Control Plan, San Diego Basin (9) (hereinafter Basin Plan) was adopted by this Regional Board on September 8, 1994 and subsequently approved by the SWRCB on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by this Regional Board and adopted by the SWRCB. The Basin Plan designates beneficial uses and narrative and numerical water quality objectives, and prohibitions which are applicable to the discharges regulated under this Order.
- 28. The Basin Plan identifies the following beneficial uses of San Diego Bay waters to be protected:
 - a. Industrial service supply;
 - b. Navigation;
 - c. Contact water recreation;
 - d. Non-contact water recreation;
 - e. Ocean Commercial and sport fishing;
 - f. Preservation of Rare, threatened or endangered species
 - g. Marine habitat;
 - h. Fish Migration
 - i. Shellfish harvesting
 - j. Fish Spawning

- k. Wildlife habitat
- l. Preservation of Areas of Special Biological Significance
- m. Mariculture

29. The Basin Plan contains prohibitions applicable to surface waters. The applicable prohibitions of the Basin Plan have been incorporated herein as attachment A.
30. Pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California (collectively "antidegradation policies"), the Regional Board shall ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies.

At a minimum, permitting actions shall be consistent with the following:

- a. Existing instream water uses and the level of water quality necessary to protect existing beneficial uses shall be maintained and protected;
 - b. Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, the quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economical or social development in the area in which the waters are located;
 - c. Where high quality waters constitute an outstanding national resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected; and
 - d. In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the Clean Water Act.
31. The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of State and Federal antidegradation policies and has determined that:
- a. The conditions and effluent limitations established in this order for groundwater extraction waste discharges to San Diego Bay ensure that the existing beneficial uses and quality of San Diego Bay waters will be maintained and protected;

- b. Allowing groundwater extraction waste discharges to San Diego Bay is necessary to accommodate economic development important to the people of the communities surrounding San Diego Bay;
 - c. San Diego Bay has not been designated an outstanding national resource water; and
 - d. Thermal discharges potentially impairing water quality are not authorized under the terms and conditions of this Order, thus, Section 316 of the Clean Water Act is not applicable.
32. Discharge criteria established under Sections 301, 302, 304, 306, 307, and 403 of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), are applicable to the discharges regulated by this order.
33. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
- a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;
 - b. Other waste discharges;
 - c. The need to prevent nuisance;
 - d. Past, present, and probable future beneficial uses of the waters under consideration;
 - e. Environmental characteristics of the waters under consideration;
 - f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;
 - g. Economic considerations; and
 - h. The need for developing housing within the region;
 - i. The need to develop and use recycled water.
34. This Order shall serve as a general National Pollutant Discharge Elimination System (NPDES) permit for groundwater extraction waste discharges to San Diego Bay and storm drains or other conveyance systems tributary thereto pursuant to Section 402 of the Clean Water Act, and amendments thereto.
35. The reissuance of this general permit is exempt from the requirement for preparation of

environmental documents under the California Environmental Quality Act (Public Resources Code, Division 13, Chapter 3, Section 21000 et seq.) in accordance with the California Water Code, Section 13389.

36. The Regional Board has notified all known interested parties of its intent to reissue the general NPDES permit for groundwater extraction waste discharges to San Diego Bay and has provided them with an opportunity to submit their written views and recommendations.
37. The Regional Board has, in a public meeting, heard and considered all comments pertaining to groundwater extraction waste discharges to San Diego Bay.

IT IS HEREBY ORDERED, that each authorized discharger⁷ (hereinafter enrollee), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS:

1. The discharge of waste to areas designated by the SWRCB as being of special biological significance is prohibited. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.
2. The discharge of groundwater extraction wastes from a specific site in excess of the flowrate specified in the authorization letter from the Executive Officer is prohibited unless the enrollee obtains a revised discharge authorization letter authorizing an increased flowrate.
3. The addition of pollutants to extracted groundwater to be discharged to San Diego Bay is prohibited. The only exception to this prohibition is that chemicals may be added to extracted groundwater to control biofouling in treatment systems, provided that extracted groundwater discharged to San Diego Bay meets the effluent limitations for such chemicals established by this Order and in the discharge authorization letter issued by the Executive Officer.
4. The discharge of groundwater extraction wastes to San Diego Bay is prohibited unless the required application and certification report for the discharge has been submitted to the Executive Officer and the Executive Officer has provided the enrollee with written authorization to initiate the discharge.
5. Discharges of waste from new permanent¹ groundwater extraction operations to San Diego Bay are prohibited.

6. The discharge of groundwater extraction wastes to San Diego Bay from a construction dewatering operation after the date of completion of construction of structures requiring construction dewatering is prohibited.
7. The discharge of groundwater extraction wastes to San Diego Bay from a groundwater remediation operation after the date groundwater has been remediated to the satisfaction of the Executive Officer is prohibited.
8. Compliance with Discharge Prohibitions as stated in the 1974 Bays and Estuaries Plan (Attachment No. A) is required as a condition of this Order.
9. Compliance with Discharge Discharge Prohibitions contained in the Basin Plan (Attachment B) is also required as a condition of this Order.
10. Discharges of wastes in a manner or to a location which have not been specifically authorized by this Order are prohibited.
11. The discharge of any radiological, chemical, or biological warfare agent, or high level radiological waste to the ocean is prohibited.
12. The dumping or deposition, from shore, of oil, garbage, trash, or other solid municipal, industrial, or agricultural waste directly into waters subject to tidal action or adjacent to waters subject to tidal action in any manner which may permit it to be washed into waters subject to tidal action is prohibited.
13. The dumping or deposition of chemical agents or explosives into waters subject to tidal action is prohibited.

B. DISCHARGE SPECIFICATIONS⁸

1. The discharge of groundwater extraction waste from any site to San Diego Bay, or tributaries thereto within the tidal influence of San Diego Bay, containing pollutants in excess of the following effluent limitations is prohibited:

Constituent	Unit	6-Month Median	30-day Average	Daily Maximum	Instantaneous Maximum	Basis ⁹
Settleable Solids	ml/L	---	1.0	---	3.0	BPJ ¹⁰
Total Suspended Solids	mg/L	---	30.0	---	50.0	"
Hydrogen Sulfide	ug/L	---	2.0	4.0	10.0	BPJ ¹⁰
Total Residual Chlorine (TRC) ¹¹	ug/L	2.0	---	8.0	60.0	OP ⁹
pH	pH Units	Within the limits of 6.0 to 9.0 at all times				"
Benzene	ug/L	---	---	---	5.0	BPJ/BAT ¹²
Ethylbenzene	ug/L	---	---	---	5.0	"

Toluene	ug/L	---	---	---	5.0	"
Xylene	ug/L	---	---	---	5.0	"
Total Petroleum Hydrocarbons	mg/L	---	---	---	0.5	"
Arsenic	ug/L	36.0	---	---	69.0	CTR ⁹
Cadmium	ug/L	9.3	---	---	42.0	"
Chromium (hexavalent) ¹³	ug/L	50.0	---	---	1100.0	"
Copper	ug/L	3.1	---	---	4.8	"
Lead	ug/L	8.1	---	---	210.0	"
Mercury	ug/L	0.94	---	---	1.8	"
Nickel	ug/L	8.2	---	---	74.0	"
Silver	ug/L	---	---	---	1.9	"
Zinc	ug/L	81.0	---	---	90.0	"
Cyanide	ug/L	1.0	---	---	1.0	"
Phenolic Compounds (non-chlorinated)	ug/L	30.0	---	120.0	300.0	OP ⁹
Chlorinated Phenolics	ug/L	1.0	---	4.0	10.0	OP
Polychlorinated Biphenyls	ug/L	0.03	---	---	---	CTR ⁹
1,1,2,2-tetrachloroethane (PCA)	ug/L	---	11.0	---	---	EBE ¹²
1,1,1-trichloroethane (TCA)	mg/L	---	11.0	---	---	"
1,1,2-trichloroethane (TCA)	ug/L	---	42.0	---	---	"
1,2-dichloroethane	ug/L	---	130.0	---	---	"
tetrachloroethylene (PCE)	ug/L	---	6.9	---	---	"
trichloroethylene (TCE)	ug/L	---	92.0	---	---	"
vinyl chloride	ug/L	---	34.0	---	---	"
carbon tetrachloride	ug/L	---	3.8	---	---	"
Base/Neutral Organic Compounds ¹⁴	ug/L	---	---	---	10.0	BPJ/BAT ¹²
Acute Toxicity	TUa	---	---	---	0.59	BPJ ¹⁰
Chronic Toxicity	TUc	---	---	1.0	---	"
Tributyltin (TBT)	ug/L	---	0.005	---	---	"
Total Coliform	MPN/100ml	---	---	---	1000.0	"
Fecal Coliform	"	---	---	---	200.0	"
Dissolved Oxygen (D.O.)	mg/L	---	---	---	>5.0	"

Note: ml/L = milliliters per liter, mg/L = milligrams per liter
 µg/L = micrograms per liter, TUa = acute toxicity units
 TUc = chronic toxicity units

2. Groundwater discharged to San Diego Bay must be essentially free of:
 - a. Material that is floatable or will become floatable upon discharge.
 - b. Settleable material or substances that form sediments which degrade¹⁵ benthic communities or other marine life.
 - c. Substances that will accumulate to toxic levels in marine sediments or biota.
 - d. Substances that significantly¹⁶ decrease the natural light to benthic communities and other marine life.

- e. Materials that result in aesthetically undesirable discoloration of San Diego Bay surface waters.
- 3. Groundwater discharged to San Diego Bay shall not cause natural water quality conditions to be altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater.
- 4. Groundwater discharged to San Diego Bay shall be discharged in such a manner as to provide maximum protection to marine environments.

C. RECEIVING WATER LIMITATIONS¹⁷

The discharge of groundwater extraction waste from any site shall not, separately or jointly with any other discharge, cause violations of the following water quality objectives in San Diego Bay.

1. Bacterial Characteristics

(1) Water-Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water-contact sports, as determined by the Regional Board, the following bacterial objectives shall be maintained throughout the water column:

- (a) Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).
- (b) The fecal coliform density based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.

(2) Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Board, the following bacterial objectives shall be maintained throughout the water column:

The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

2. Physical Characteristics

- a. Floating particulates and grease and oil shall not be visible.
- b. The discharge of waste shall not cause aesthetically undesirable discoloration of the surface of San Diego Bay.
- c. Natural light shall not be significantly¹⁶ reduced.
- d. The rate of deposition of solids and the characteristics of inert solids in San Diego Bay sediments shall not be changed such that benthic communities are degraded¹⁵.

3. Chemical Characteristics

- a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste materials.
- b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
- c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly¹⁶ increased above that present under natural conditions.
- d. The concentration of substances set forth in Discharge Specification B.I in marine sediments shall not be increased to levels which would degrade¹⁵ indigenous biota.
- e. The concentration of organic materials in San Diego Bay sediments shall not be increased to levels which would degrade¹⁵ marine life.
- f. Nutrient materials shall not cause objectionable aquatic growth or degrade¹⁵

indigenous biota.

4. Biological Characteristics

- a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded¹⁵.
- b. The natural taste, odor, and color of fish, shellfish¹⁸, or other aquatic resources used for human consumption shall not be altered.
- c. The concentration of organic materials in fish, shellfish or other aquatic resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Radioactivity

Discharge of radioactive waste shall not degrade¹⁵ marine life.

6. Toxic Materials Limitations

Constituent	Unit	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Residual Chlorine (TRC) ¹¹	µg/L	2.0	11.0	126.0
Benzene	µg/L	---	---	5.0
Ethylbenzene	µg/L	---	---	5.0
Toluene	µg/L	---	---	5.0
Xylene	µg/L	---	---	5.0
Arsenic	ug/L	36.0	---	69.0
Cadmium	ug/L	9.3	---	42.0
Chromium (hexavalent) ¹³	ug/L	50.0	---	1100.0
Copper	ug/L	3.1	---	4.8
Lead	ug/L	8.1	---	210.0
Mercury	ug/L	0.94	---	1.8
Nickel	ug/L	8.2	---	74.0
Silver	ug/L	---	---	1.9
Zinc	ug/L	81.0	---	90.0
Cyanide	ug/L	1.0	---	1.0
Phenolic Compound (non-chlorinated)	µg/L	30.0	120.0	300.0
Chlorinated Phenolics	µg/L	1.0	4.0	10.0
1,1,2,2 tetrachloroethane(PCA)	ug/L	---	11.0	---
1,1,1-trichloroethane(TCA)	mg/L	---	11.0	---
1,1,2-trichloroethane(TCA)	ug/L	---	42.0	---
1,2-dichloroethane	ug/L	---	130.0	---
tetrachloroethylene(PCE)	ug/L	---	6.9	---
trichloroethylene(TCE)	ug/L	---	92.0	---
vinyl chloride	ug/L	---	34.0	---
carbon tetrachloride	ug/L	---	3.8	---

Base/Neutral Organic Compounds ¹⁴	µg/L	---	---	10.0
Acute Toxicity Concentration	TUa	0.05	---	0.59
Chronic Toxicity Concentration	TUc	---	1.0	---

D. PROVISIONS

1. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.
2. The enrollee must comply with all conditions of this Order and the authorization letter from the Executive Officer. Any permit noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action; for authorization letter termination or modification.
3. The enrollee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order and the authorization letter from the Executive Officer, including such accelerated or additional monitoring as may be necessary to determine the nature, and impact of the noncomplying discharge.
4. This Order or an authorization letter from the Executive Officer, may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this Order or an authorization letter from the Executive Officer;
 - b. Obtaining this Order, or an authorization letter from the Executive Officer, by misrepresentation or failure to disclose fully all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
 - d. A finding that monitoring "indicator" pollutants listed in this Order do not ensure compliance with water quality criteria or objectives for the pollutants expected to be represented by the "indicator" pollutants.

The filing of a request by the enrollee for modification, revocation and reissuance, or termination of this Order or an associated discharge authorization letter from the Executive Officer, or a notification of planned change in or anticipated noncompliance with this Order or discharge authorization letter does not stay any condition of this Order or the authorization letter from the Executive Officer.

5. Notwithstanding Provision D.4 above, if any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Board may institute proceedings under these regulations to modify or revoke and reissue this Order to conform to the toxic effluent standard or prohibition.
6. In addition to any other grounds specified herein, this Order or an authorization letter from the Executive Officer shall be modified or revoked at any time if, on the basis of any data, the Executive Officer determines that continued discharges may cause unreasonable degradation of the aquatic environment.

The Executive Officer of the Regional Board or the Director of the USEPA may require any person requesting authorization to discharge under this general permit or authorized to discharge under this general permit to apply for and obtain an individual NPDES permit. Cases where an individual NPDES permit may be required include but are not limited to those described in 40 CFR 122.28 (b)(3)(i) and (b)(3)(ii), and where the volume of a discharge exceeds 10 million gallons per year or the duration of a discharge exceeds 3 years.

7. An authorized discharge, either separately or jointly with any other discharge, shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act or amendments thereto, the Regional Board will revise and modify this Order in accordance with the more stringent standards.
8. The enrollee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.
9. This Order or an authorization letter from the Executive Officer, is not transferable to any person except after notice to the Executive Officer of this Regional Board. The Regional Board may require the transmittal of a new discharge authorization letter from the Executive Officer to change the name of the enrollee and incorporate such other requirements as may be necessary under the California Water Code and the Clean Water Act. The enrollee shall submit notice of any transfer of this Order's responsibility and coverage to a new enrollee as described under Reporting Requirement E.3.
10. This Order or an authorization letter from the Executive Officer, does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed

herein do not authorize the commission of any act causing injury to persons or property of another, including property damage caused as a result of the migration of groundwater contaminant plumes, nor protect the enrollee from liabilities under federal, state, or local laws, nor create a vested right for the enrollee to continue the waste discharge.

11. The enrollee shall allow the Regional Board, or an authorized representative or any representative of the United States Environmental Protection Agency upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the enrollee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operation regulated or require under this Order; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the Clean Water Act or California Water Code, any substances or parameters at any location.
12. The enrollee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the enrollee to achieve compliance with the conditions of this Order or an authorization letter from the Executive Officer. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order or an authorization letter from the Executive Officer.
13. Bypass of Treatment Facilities
 - a. Definitions
 - (1) "Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which cause them to become

inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass Not Exceeding Effluent Limitations

The enrollee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operations. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

c. Notice of Anticipated Bypass and Unanticipated Bypass

- (1) Anticipated bypass. If the enrollee knows in advance of the need for a bypass, they shall submit prior notice, if possible, at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The enrollee shall submit notice of an unanticipated bypass as described under Reporting Requirement E.5.

d. Prohibition of Bypass

- (1) Bypass is prohibited and the Regional Board may take enforcement action against the enrollee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the enrollee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The enrollee submitted notices as required under paragraph (c) of this section.
- (2) The Regional Board may approve an anticipated bypass, after considering its adverse effect, if the Regional Board determines that it will meet the three conditions listed above in paragraph (a) of this section.

14. Upset Conditions

a. Definitions

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the enrollee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance, was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions Necessary for a Demonstration of Upset

A enrollee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operations logs, or other relevant evidence that:

- (1) An upset occurred and that the enrollee can identify the specific cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated; and
- (3) The enrollee submitted notice of the upset as required in Reporting Requirement E.6.

d. Burden of Proof

In any enforcement proceeding the enrollee seeking to establish the occurrence of an upset has the burden of proof.

15. In an enforcement action, it shall not be a defense for the enrollee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order or an authorization letter from the Executive

Officer. Upon reduction, loss, or failure of the treatment facility, the enrollee shall, to the extent necessary to maintain compliance with this Order or an authorization letter from the Executive Officer, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced or is lost.

16. It shall not be a defense for the enrollee in an enforcement action that effluent limitation violations are a result of analytical variability rendering the results inaccurate. The validity of the testing results, whether or not the enrollee has monitored or sampled more frequently than required by this Order, shall not be a defense to an enforcement action.
17. A copy of this Order, and the authorization letter from the Executive Officer shall be posted at a prominent location at or near the enrollee's facility, and shall be available to operating personnel at all times.
18. The provisions of this Order and the authorization letter from the Executive Officer are severable, and if any provision of this Order or an authorization letter from the Executive Officer, or the application of any provision of this Order or an authorization letter to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order and the authorization letter, shall not be affected thereby.
19. The enrollee shall take all reasonable steps to minimize or prevent any discharge in violation of this Order which has a reasonable likelihood of adversely affecting human health or the environment.
20. The enrollee shall comply with any interim effluent limitations as established by addendum, enforcement action or revised waste discharge requirements which have been or may be adopted by this Regional Board.

Pursuant to the CWC Section 13267(b) and 13383, the enrollee shall comply with *Monitoring and Reporting Program No. 2000-90* as specified by this Regional Board. The enrollee shall comply with all items of the "Standard Provisions" that are part of this Order (Attachment C).

21. The 6-month median effluent concentration limit shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.
22. The 30-day average shall be the arithmetic mean, using the results of analyses of all

samples collected during any 30 consecutive calendar day period.

23. The 7-day average shall be the moving arithmetic mean of daily concentrations over the specified 7-day period.
24. The daily maximum effluent concentration limitation shall apply to flow weighted 24 hour composite samples, or grab samples in the duration of the discharge is less than 24 hours.
25. The instantaneous maximum effluent concentration limit shall apply to grab sample determinations.
26. If only one sample is collected during the time period associated with the effluent limitations (e.g., 30-day average or 6-month median), the single measurement shall be used to determine compliance with the effluent limitation for the entire time period.
27. All analytical data shall be reported uncensored with detection limits and quantitation limits identified. For any effluent limitation, compliance shall be determined using appropriate statistical methods to evaluate multiple samples. Sufficient sampling and analysis shall be conducted to determine compliance.
28. Compliance based on a single sample analysis should be determined where appropriate as described below.
 - a. When a calculated effluent limitation is greater than or equal to the PQL (defined below), compliance shall be determined based on the calculated effluent limitation and either single or multiple sample analyses.
 - b. When the calculated effluent limitation is below the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.
 - c. When the calculated effluent limitation is below the PQL and recurrent analytical responses between the PQL and the calculated limit occur, compliance shall be determined by statistical analysis of multiple samples.
29. Published values for MDLs (defined below) and PQLs should be used except where revised MDLs and PQLs are available from recent laboratory performance evaluations, in which case the revised MDLs and PQLs should be used. Where published values are not available, the Regional Board will determine appropriate values based on available information, including information submitted by the enrollee upon request of the Regional Board.

- a. The Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 CFR Part 136 Appendix B.
 - b. The Practical Quantitation Level (PQL) is the lowest concentration of a substance which can be consistently determined within +/-20% of the true concentration by 75% of the labs tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL for carcinogens is the MDL x 5, and for noncarcinogens is the MDL x 10.
30. When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCBs) concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the MDL for that parameter.
31. The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

$$\text{mass emission rate (lb/day)} = 8.34 \times Q \times C$$

in which Q and C are the flow rate in MGD and the constituent concentration in mg/L, respectively, and 8.34 is a conversion factor. If a composite sample is taken, then C is the constituent concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited. Mass loading effluent limitations for a specific pollutant may be calculated using the authorized flowrate (in MGD) as the flow rate "Q" and the pollutant concentration limitation contained in Discharge Specification No. B.1 as the constituent concentration "C" in the above equation.

32. Compliance with the Acute Toxicity limitation in Discharge Specification B.1.a. of this Order shall be determined using an established protocol, e.g., American Society for Testing Materials (ASTM), USEPA, American Public Health Association, or State Board. Acute Toxicity (TUa) shall be expressed in Toxic Units Acute (TUa), where:

$$\text{TUa} = \frac{100}{96\text{-hour LC } 50}$$

Where LC50 is the Lethal Concentration 50% and the percent waste giving 50% survival of test organisms. LC50 shall be determined by static or continuous flow bioassay techniques using standard test species. If specific identifiable substances in wastewater can be demonstrated by the enrollee as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50

may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC 50 due to greater than 50% survival of the test species in 100% waste, the toxicity concentration shall be calculated by the following:

$$TUa = \frac{\log(100 - S)}{1.7}$$

where S is the percentage survival in 100% waste. If $S > 99$, TUa shall be reported as zero.

33. Compliance with the Chronic Toxicity effluent limitation established in Discharge Specification No. B.1.b of this Order shall be determined using critical life stage toxicity tests. Chronic Toxicity (TUc) shall be expressed as Toxic Units Chronic (TUc), where:

$$TUc = \frac{100}{NOEL}$$

where NOEL is the No Observed Effect Level and is expressed as the maximum percent of effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed below.

A minimum of three test species with approved test protocols shall be used to measure compliance with the chronic toxicity objective. The test species shall include a fish, an invertebrate, and an aquatic plant. Acceptable test species are: Fish=stickleback, Invertebrate=mussel or abalone; Plant=kelp. After a screening period, monitoring may be reduced to the most sensitive species. Dilution and control water should be obtained from an unaffected area of the receiving waters. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

The tests specified in the March 1997 Ocean Plan shall be used to measure TUc. Other tests may be added to the list when approved by the SWRCB.

34. No later than six months after authorization to discharge under this Order, all permanent groundwater extraction enrollees enrolled under this general permit shall develop a Toxicity Reduction Evaluation (TRE) workplan in accordance with USEPA's Toxicity Reduction Evaluation Procedures: Phases 1, 2, and 3, (USEPA document Nos. USEPA 600/3-88/034, 600/3-88/035 and 600/3-88/036, respectively), and TRE Protocol for Municipal Wastewater Treatment Plants (USEPA 600/2-88/062). The TRE workplan shall be subject to the approval of the Regional Board and shall be modified as directed

by the Regional Board. All enrollees shall submit the TRE workplan to the Regional Board upon completion of the TRE workplan. Submittal of the TRE workplan on a IBM formatted double sided high density 3.5" floppy disk in Word version 7.0 format is acceptable.

If toxicity testing results show a violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1 of this Order, the enrollee shall:

- a. Take all reasonable measures necessary to immediately minimize toxicity; and
- b. Increase the frequency of the toxicity test(s) which showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.

If the Regional Board determines that toxicity testing shows consistent violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1. of this Order, the enrollee shall conduct a TRE which includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the enrollee shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in Discharge Specification B.1 of this Order.

Within fourteen days of completion of the TRE, the enrollee shall submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with all the toxicity limitations of this Order and prevent recurrence of violations of those limitations, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Regional Board.

35. For all bacterial analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000 MPN (most probable number). The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in the most recent edition of Standard Methods for the Examination of Water and Wastewater or any improved method determined by the Regional Board (and approved by USEPA) to be appropriate. Detection methods used for enterococcus shall be those presented in USEPA publication USEPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Regional Board to be appropriate.
36. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \dots \times C_n)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL) found on each day of sampling.

37. As used in this Order, waste includes an enrollee's total discharge, of whatever origin, i.e. gross, not net, discharge.
38. Reduction of natural light may be determined by the Regional Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Board.
39. The following sections of 40 CFR are incorporated into this permit by reference:
 - a. 122.5 *Effect of a permit*
 - b. 122.21 *Application for a permit*
 - c. 122.22 *Signatories to permit applications and reports*
 - d. 122.41 *Conditions applicable to all permits*
 - e. 122.61 *Transfer of permits*
 - f. 122.62 *Modification or revocation of permits*
 - g. 122.63 *Minor modifications of permits*
 - h. 122.64 *Termination of permits*

E. REPORTING REQUIREMENTS

1. The enrollee shall file a new application and certification report not less than 180 days prior to the following:
 - a. Addition of any waste or chemical constituent to the discharge or the addition of a new process or product resulting in a change in the character of the wastes.
 - b. Significant change in disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).
 - c. Significant change in the location of the point of discharge and in disposal area (e.g., moving the discharge to a disposal area significantly removed from the original area, potentially causing different water quality or nuisance problems).
 - d. Increase in flow beyond that specified in the enrollee's authorization letter from the Executive Officer.

- e. Other circumstances which result in a material change in character, amount, or location of the waste discharge.
 - f. Any planned physical alterations or additions to the permitted discharge/facility.
- 2. The enrollee shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this Order or an authorization letter from the Executive Officer.
- 3. The enrollee must notify the Regional Board, in writing, at least 30 days in advance of any proposed transfer of authorization and responsibility for compliance with this Order to a new enrollee. The notice must include a written agreement between the existing and new enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the current enrollee and the new enrollee. This agreement shall include an acknowledgement that the existing enrollee is liable for violations up to the transfer date and that the new enrollee is liable from the transfer date on.
- 4. The enrollee shall comply with the attached Monitoring and Reporting Program No. 2000-90 and any additional monitoring requirements specified by the Executive Officer. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2000-90. The sampling and analysis schedule in the attached monitoring program is the program to be followed. If requested by the enrollee, the monitoring program may be modified or reduced by the Executive Officer after review of results from not less than four sampling events with a sampling frequency of not less than monthly. If the groundwater extraction and/or treatment system(s) described in the application and certification report is modified, the schedule of applicable monitoring specified in Monitoring and Reporting Program No. 2000-90 will be reviewed for possible modification.
- 5. The enrollee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally to the Regional Board within 24 hours from the time the enrollee becomes aware of the circumstances. The enrollee shall submit a written report containing a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The written report shall be included with the monitoring report for the period in which the noncompliance occurred, or earlier if requested by the Regional Board. The following occurrence(s) must be reported to the Regional Board within 24 hours:
 - a. Any upset which causes the effluent limitations of this Order to be exceeded.

- b. Any unanticipated bypass which causes the effluent limits of this Order to be exceeded.
 - c. Violations of a daily maximum effluent limitation as specified in this Order for the following pollutants:
 - (1) Hydrogen Sulfide
 - (2) Total Chlorine Residual¹¹
 - (3) Benzene
 - (4) Ethylbenzene
 - (5) Toluene
 - (6) Xylene
 - (7) Total Petroleum Hydrocarbons
 - (8) Methyl Tertiary Butyl Ether (MTBE)
 - (9) Arsenic
 - (10) Cadmium
 - (11) Chromium (Hexavalent)¹³
 - (12) Copper
 - (13) Lead
 - (14) Mercury
 - (15) Nickel
 - (16) Silver
 - (17) Zinc
 - (18) Cyanide
 - (19) Phenolic Compounds (nonchlorinated)
 - (20) Chlorinated Phenolics
 - (21) Polychlorinated Biphenyls
 - (22) Remaining Volatile and Base/Neutral Compounds¹⁴
 - (23) Chronic Toxicity Concentration
 - d. Any violation of any of the prohibitions of this Order or an authorization letter from the Executive Officer.
6. The enrollee shall notify the Regional Board as soon as it is known or there is reason to believe:
- a. That any activity has occurred or which will occur which would result in the discharge of any toxic pollutant which is not limited in this Order, if that discharge will exceed the highest of the following "notification levels":
 - 1. One hundred micrograms per liter (100 µg/L);

2. Two hundred micrograms per liter (200 $\mu\text{g/L}$) for acrolein and acrylonitrile; five hundred micrograms per liter (500 $\mu\text{g/L}$) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
7. The enrollee shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or an authorization letter, or to determine compliance with this Order or other requirements established by the Regional Board. The enrollee shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order or an authorization letter from the Executive Officer.
8. The enrollee shall provide adequate notice to the Regional Board of the following:
 - a. Any new introduction of pollutants to the discharge.
 - b. Any substantial change in the volume or character of pollutants being introduced into the discharge.
 - c. For the purpose of this provision, adequate notice shall include information on (1) the quality and quantity of waste introduced into the discharge, (2) relocation of the point of discharge or change in the storm drain or conveyance system used to discharge to San Diego Bay, and (3) any anticipated impact of the change on the quantity or quality of effluent to be discharged to San Diego Bay.
9. Where the enrollee becomes aware that it failed to submit any relevant facts in an application or certification report, or submitted incorrect information in an application or certification report, or in any report to the Regional Board, it shall promptly submit such facts or information.
10. If a need for a discharge bypass is known in advance, the enrollee shall submit prior notice and, if at all possible, such notice shall be submitted at least ten days prior to the date of the bypass.
11. This Order expires on June 14, 2005. However, it will continue in force and effect until a new general permit is issued or the Regional Board rescinds this general permit.
12. All applications, reports, or information submitted to the Executive Officer of this Regional Board shall be signed and certified.
 - a. The application and certification report shall be signed as follows:

1. For a corporation - by a principal executive officer of at least the level of vice-president.
 2. For a partnership or sole proprietorship - by a general or partner or the proprietor, respectively.
 3. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
- b. All other reports required by this Order and other information requested by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
1. The authorization is made in writing by a person described in paragraph (a) of this provision;
 2. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 3. The written authorization is submitted to the Executive Officer.
- c. Any person signing a document under this Section shall make the following certification:
- "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."
13. Except for data determined to be confidential under Title 40, Code of Federal Regulations Part 2(40 CFR Part 2), all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region and the United States Environmental Protection Agency Region 9. As required by the Clean Water Act, Reports of Waste Discharge, this Order, and effluent data shall not be considered

confidential.

14. In order to obtain authorization to discharge under the terms and conditions of this Order, the enrollee shall submit an application on forms provided by the Regional Board, and in accordance with directions specified by the Regional Board. **The application shall include the following information and materials:**
- a. **Project type: remediation or construction.**
 - b. **Project address/location (include a map).**
 - c. **Number of groundwater extraction sites.**
 - d. **Estimated maximum discharge flowrate(s) (GPD).**
 - e. **Estimated duration of groundwater extraction operation.**
 - f. **Proposed groundwater extraction start date.**
 - g. **Proposed location(s) of discharge points.**
 - h. **Location and description of storm drain(s) or conveyance system(s) used to route discharge to San Diego Bay.**
 - i. **Name of public agency or entity having jurisdiction of storm drain(s) or conveyance system(s) used to discharge to San Diego Bay.**
 - j. **Proof of notification to the public agency or entity responsible for the storm drain(s) or conveyance system(s) used to route the proposed discharge to San Diego Bay.**
 - k. **Cone of influence assessment.**
 - l. **Historical land use report.**
 - m. **Proximity of discharge location to Areas of Special Biological Significance (ASBS).**
 - n. **Site Assessment (if a site assessment has been done).**
 - o. **Description of all known contamination within the cone of influence.**
 - p. **Proposed treatment processes, including chemicals to be used for biofouling control.**
 - q. **BMP and contingency plan (for leaks, spills and treatment system failures).**
 - r. **Discussion of the potential uses of the extracted groundwater and compliance with Article X, Section 2, of the California Constitution. An example of a potential use is dust control.**
 - s. **Discussion of the potential for disposal to alternative receiving waters. Examples of alternative methods of disposal are reinjection and percolation into the ground.**
 - t. **Statement of compliance with 40CFR 131.12 and SWRCB Resolution No. 68-16 (collectively Antidegradation Policies).**
 - u. **Results of analyses of the groundwater to be extracted for all of the constituents listed in Discharge Specification B.1. of this Order.**
 - v. **Signed Certification of Compliance statement on responsible party letterhead.**

Enrollees applying for enrollment under this Order shall notify the Agency/Municipality that owns, operates, and maintains the storm drain conveyance system that the enrollee proposes to use as a discharge conveyance system to a surface water.

15. The enrollee shall submit written notification of the termination of the discharge to the Regional Board within 30 days of termination of the discharge.
16. The enrollee shall submit reports required under this Order to:

Surface Water Unit
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd, Suite A
San Diego, California 92124-1324

Notifications required to be provided to this Regional Board shall be made to:

Telephone - (858) 467-2952 or
Facsimile - (858) 571-6972

F. NOTIFICATIONS

1. California Water Code Section 13263(g) states:

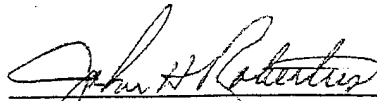
"No discharge of waste into the waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the state are privileges, not rights."

2. The Clean Water Act provides that any person who violates a condition of this Order implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$10,000 per day of such violations. Any person who willfully or negligently violates conditions of this Order implementing Section 301, 302, 306, 307 or 308 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both.
3. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per

violation, or by both.

4. Nothing in this Order shall be construed to relieve the enrollee from civil or criminal penalties for noncompliance.
5. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the enrollee from any responsibilities, liabilities, or penalties to which the enrollee is or maybe subject to under Section 311 of the Clean Water Act.
6. Nothing in this Order shall be construed to preclude institution of any legal action or relieve the enrollee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.
7. If the Water Quality Control Policy for Enclosed Bays and Estuaries of California is revised, this Order may be modified to incorporate such revisions. If a Water Quality Control Plan for Enclosed Bays and Estuaries of California is adopted, this Order may be modified to implement such a plan.
8. This Order does not apply to discharges regulated by a municipal stormwater permit.
9. This Order shall become effective 10 days after the date of its adoption, provided the Regional Administrator or Director, United States Environmental Protection Agency, has no objection. If the Regional Administrator or Director objects to its issuance, this Order shall not become effective until such objection is withdrawn.
10. At each regularly scheduled Regional Board meeting, the Executive Officer will include a report of the applications for authorization to discharge under this Order, and of the authorizations to discharge issued, and modifications to existing authorizations.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on June 14, 2000.



John H. Robertus
Executive Officer

ENDNOTES
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Endnote references for waste discharge requirements for Order No. 2000-90 NPDES Permit No. CAG919001), General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributaries Thereto, San Diego County.

1. For the purposes of this Order, "permanent groundwater extraction operations" are groundwater dewatering operations for structures which 1) are not designed or constructed to withstand hydrostatic pressure or do not preclude infiltration of groundwater, and 2) require removal of groundwater to prevent water infiltration to the structure(s).

For purposes of this Order, "new permanent groundwater extraction operations" are permanent groundwater dewatering operations which were initiated after April 23, 1990 where the enrollee was not issued an individual NPDES permit for a proposed discharge of groundwater extraction waste from a permanent dewatering operation to San Diego Bay prior to adoption of Order No. 90-31, unless, prior to adoption of Order No. 90-31, the enrollee applied for and obtained all necessary building permits from the proper agencies.

Groundwater extraction waste discharges to San Diego Bay which are not from new permanent groundwater extraction operations, such as groundwater cleanup and construction dewatering discharges, may be authorized under the terms and conditions of this Order. Discharges of groundwater for the purpose of protecting subterranean structures from groundwater infiltration are not considered groundwater cleanup projects, whether or not such discharges cleanup or remove pollutants from the groundwaters.

This prohibition does not apply to existing or new small dewatering sumps necessary to protect public utilities (e.g., electrical, telephone, municipal sewer pumping stations, and other utilities vital to the public) and which have intermittent discharges.

2. "Best available technology economically achievable" refers to the best treatment technologies available which have been determined to be cost effective, reliable, and efficient by the United States Environmental Protection Agency (USEPA) or State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (RWQCB).
3. 40 CFR 122.44(d)(1)(vii) requires that if indicator monitoring parameters are used, the following four provisions must be fulfilled: 1) the permit identifies which pollutants are intended to be controlled by use of the indicator effluent limitations, 2) the fact sheet sets forth the basis for each indicator chemical's effluent concentration limitation and includes a finding that compliance with the limit on the indicator constituent will result in controls on the pollutant(s) of

concern which are sufficient to attain and maintain water quality standards, 3) effluent and receiving water quality monitoring to show the limit on the indicator parameter attains and maintains applicable water quality standards, and 4) the permit contains a reopener clause. Each of the preceding conditions for inclusion of indicator parameter monitoring has been addressed in this Order, the attached Monitoring and Reporting Program, the discharge authorization letter from the Executive Officer, or the Fact Sheet for this Order.

4. Leaking Underground Fuel Tank Manual (LUFT): Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, State of California, Leaking Underground Fuel Tank Task Force, established May 1988.
5. Diesel fuel consists primarily of straight-chain hydrocarbons (alkenes and alkanes) ranging in length from C10 to C23 with C16 and C17 predominating. The C10-C30 straight-chain hydrocarbons can be quantified in groundwater using standard analytical techniques (e.g. California Department of Health Services' recommended analytical procedure for total petroleum hydrocarbons - diesel, (LUFT Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989), base/neutral organic analytical techniques contained in 40 CFR 136). Since the predominant components of diesel fuel are the straight-chain hydrocarbons, the total petroleum hydrocarbon - diesel standard testing method contained in the LUFT Manual is used as the indicator of diesel fuel-contaminated groundwaters. Groundwater gasoline remediation projects may use standard TPH methods.
6. NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), U.S. Environmental Protection Agency, Water Management Division, July 1986.
7. After receipt of an application and certification report as required by Reporting Requirement E.14 of Order No. 2000-90, the Executive Officer may 1) determine that the proposed discharge is subject to regulation by Order No. 2000-90, 2) determine that the proposed discharge is not subject to regulation by Order No. 2000-90, or 3) request additional information in order to determine if the discharge is subject to regulation by Order No. 2000-90. If the Executive Officer determines that the proposed discharge is subject to regulation by Order No. 2000-90, an "authorization letter" will be issued to the enrollee authorizing the discharge subject to the terms and conditions of Order No. 2000-90 and any other conditions necessary to protect the beneficial uses of San Diego Bay. The authorization letter from the Executive Officer will also specify the maximum allowed discharge flowrate (which also limits the mass loading rate for each pollutant listed in Discharge Specification No. B.1. of Order No. 2000-90) and any additional monitoring and reporting requirements not covered by Monitoring and Reporting Program No. 2000-90. Discharge authorization letters issued by the Executive Officer for discharges from groundwater remediation operations, shall specify effluent limits and monitoring requirements for the constituents necessitating remediation. If the Executive Officer does not issue written authorization for a discharge under the terms and conditions of Order No. 2000-90, the discharge of groundwater extraction waste to San Diego Bay is

prohibited.

8. The effluent limitations for Ocean Plan Table B constituents for groundwater extraction waste discharges were determined by using an initial dilution factor of zero and applying the calculations and procedures found in the Water Quality Control Plan, Ocean Waters of California, 1997. The effluent limitations for volatile organics (e.g., benzene, ethylbenzene, toluene, and xylene, etc.) are based on best professional judgement of the best available technology economically achievable (BAT) for the removal of volatile organic compounds from water (reference is made to NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), U.S. Environmental Protection Agency, Water Management Division, July 1986) and the practical quantitation level for each compound. Effluent limitations for settleable solids, total suspended solids, toxicity, hydrogen sulfide, and total petroleum hydrocarbons are based on best professional judgement.

Where effluent concentration limitations in this Order are less than Method Detection Limits (MDL) contained in 40 CFR 136, or other analytical detection levels approved by the Regional Board, compliance with effluent limitations will be assumed if the effluent concentration is less than the MDL or practical quantitation levels contained in the approved analytical methods unless more definitive (sensitive) analytical methods are requested by the Regional Board. If sample matrix interferences, or other interferences, result in analytical detection levels less sensitive than those listed in 40 CFR 136, or other methods approved by the Regional Board, such interferences shall be documented by the laboratory performing the analyses.

9. The "Basis" for each numerical effluent pollutant concentration limit necessary to protect the beneficial uses of San Diego Bay waters was derived or obtained as indicated in the Discharge Specification B.1. table. Abbreviations listed in the table are explained in the Endnote reference nos. 11, 12, and 14 below.

On April 28 2000, the USEPA promulgated the California Toxics Rule (CTR), numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California. USEPA promulgated this rule based on the administrator's determination that the numeric criteria are necessary in the State of California to protect human health and the environment. USEPA promulgated this rule to fill a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the Clean Water Act, necessitating this action by USEPA. These Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the Clean Water Act.

10. "BPJ" = Best Professional Judgement. The application of best professional judgement in establishing effluent limitations is authorized by 40 CFR125.3. The establishment of BPJ

effluent limitations is based on 1) review of effluent limitations for similar operations which discharge wastes to enclosed bays or other receiving waters in the State of California, 2) Compliance with general narrative water quality objectives as required in the Comprehensive Water Quality Control Plan Report, San Diego Basin (9) (Basin Plan), 3) Review of technical support documents Quality Criteria for Water, United States Environmental Protection Agency, if available, for suggested criteria for the protection of aquatic life, 4) Water Quality Control Plan, Ocean Waters of California, 1997, and, 5) Water Quality Control Policy for Enclosed Bays and Estuaries of California.

11. Total Residual Chlorine: In samples obtained from marine, saline, or other waters containing bromine, total residual chlorine limitations shall apply to total residual oxidants (TRO). The effluent and receiving water quality limitations for chlorine are based on a continuous discharge. Effluent and receiving water quality limitations for total chlorine residual applying to intermittent chlorine discharges not exceeding two hours, shall be determined through the use of the following equation:

$$\log y = -0.33(\log x) + 2.1$$

where y =	the effluent and receiving water quality limitation (in $\mu\text{g/L}$) to apply when chlorine is being discharged;
x =	the duration of uninterrupted chlorine discharge in minutes.

12. "BPJ/BAT"= The best professional judgement of the best available technology economically achievable. The effluent limitations for volatile and semivolatile organic compounds are based on BPJ/BAT for the removal of organic constituents as authorized by Section 301 (b)(2) of the Clean Water Act. The establishment of the BPJ/BAT effluent limitations is based on 1) economically achievable pollutant removal efficiencies of available treatment technologies, 2) method detection limits (MDL) or practical quantitation levels (PQL) established for organic contaminants in waters, 3) the draft document NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document for volatile petroleum hydrocarbons, prepared by Harold A. Ball and Kenneth H. Sutherland, United States Environmental Protection Agency, Water Management Division, July 1986, 4) Leaking Underground Storage Tank Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, State of California, Leaking Underground Fuel Tank Task Force, May 1988, 5) Final NPDES General Permit for Petroleum Fuel Contaminated Ground/Storm Waters in the State of Florida, Federal Register, July 17, 1989, and, 6) Model NPDES Permit for Discharges Resulting From the Cleanup of Gasoline Released From Underground Storage Tanks, U.S. Environmental Protection Agency, June 1989.

13. The hexavalent chromium limit may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for

hexavalent chromium and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.

14. "Base/neutral organic compounds" are listed in 40CFR 136. The instantaneous maximum effluent limitation of 10 ug/L for base/neutral compounds does not apply to pesticides.
15. Degradation shall be determined by comparison of the waste field and reference site(s) for characteristics such as species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected or are not the only ones affected.
16. Significant difference is defined as statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.
17. Compliance with the water quality objectives shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed. Since the effluent limitations in this Order are based on an initial dilution factor of zero, compliance with the water quality objectives shall be achieved at all locations in the receiving water.
18. Shellfish are organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e. mussels, clams and oysters).

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. 2000-90
FOR
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
TEMPORARY GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES
TO
SAN DIEGO BAY AND STORM DRAINS OR OTHER CONVEYANCE SYSTEMS TRIBUTARIES
THERETO
SAN DIEGO COUNTY

A. PURPOSE

This monitoring program is intended to:

- Document short-term and long-term effects of the discharge on receiving waters, sediments, biota, and beneficial uses of the receiving water.
- Determine compliance with NPDES permit terms and conditions.

The monitoring data will be used to determine compliance with water quality objectives.

B. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in the Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to any the approval of the Regional Board.
2. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR, Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified by this Order).
3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board.

4. Monitoring results must be reported on discharge monitoring report forms approved by the Regional Board.
5. If the enrollee monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the enrollee's monitoring report. The increased frequency of monitoring shall also be reported.
6. The enrollee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.
7. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed analyses;
 - e. The analytical techniques or method used; and
 - f. The results of such analyses.
8. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Regional Board or in this Order.
9. All monitoring instruments and devices used by the enrollee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
10. The enrollee shall report all instances of noncompliance including those reported under Reporting Requirement No. E.5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirement No. E.5.

11. The monitoring reports shall be signed by an authorized person as required by Reporting Requirements No. E.12.
12. A composite sample is defined as a combination of at least 8 sample aliquots of at least 100 milliliters each, collected at periodic intervals during the operating hours of a facility over a 24-hr period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.
13. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
14. For every item where the requirements are not met, the enrollee shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

C. TREATMENT SYSTEM STATUS

The daily status (e.g., onsite, in operation/on standby, etc.) of any treatment systems used to achieve compliance with Order No. 2000-90 or an associated discharge authorization letter from the Executive Officer shall be reported monthly.

D. DISCHARGE MONITORING for temporary long term discharges (discharges with a duration of greater than 6 months)

Discharge monitoring shall be conducted as follows:

Constituent	Units ¹	Sample Type	Minimum Frequency Of Analysis	Reporting Frequency
Flowrate	gpd	NA	Daily	Monthly
Settleable Solids	mg/L lb/d	grab	Monthly	Monthly
Total Suspended Solids	mg/L lb/d	"	"	"
Hydrogen Sulfide	mg/L lb/d	"	"	"
Total Residual Chlorine ²	µg/L lb/d	"	Daily when chlorinating	"
pH	Units	"	Monthly	"

Constituent	Units ¹	Sample Type	Minimum Frequency Of Analysis	Reporting Frequency
Benzene	μg/L	"	"	"
	lb/d	"	"	"
Ethylbenzene	μg/L	"	"	"
	lb/d	"	"	"
Toluene	μg/L	"	"	"
	lb/d	"	"	"
Xylene	μg/L	"	"	"
	lb/d	"	"	"
Total Petroleum Hydrocarbons ⁴ (TPH)	mg/L	"	quarterly	quarterly
	lb/d	"	"	"
Methyl Tertiary Butyl Ether (MTBE)	ug/L	"	"	"
Tributyltin (TBT)	μg/L	"	"	"
	lb/d	"	"	"
Arsenic	μg/L	"	"	"
	lb/d	"	"	"
Cadmium	μg/L	"	"	"
	lb/d	"	"	"
Chromium ⁵	μg/L	"	"	"
	lb/d	"	"	"
Copper	μg/L	"	"	"
	lb/d	"	"	"
Lead	μg/L	"	"	"
	lb/d	"	"	"
Mercury	μg/L	"	"	"
	lb/d	"	"	"
Nickel	μg/L	"	"	"
	lb/d	"	"	"
Silver	μg/L	"	"	"
	lb/d	"	"	"
Zinc	μg/L	"	"	"
	lb/d	"	"	"
Cyanide	μg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds (nonchlorinated)	μg/L	"	Semiannually	Semiannually
	lb/d	"	"	"
Chlorinated Phenolics	μg/L	"	"	"
	lb/d	"	"	"
Base/Neutrals ³	ug/L	"	"	"
	lb/d	"	"	"
1,1,2,2-tetrachloroethane (PCA) ⁷	ug/L	"	quarterly	quarterly
1,1,1-trichloroethane (TCA) ⁷	mg/L	"	"	"
1,1,2-trichloroethane (TCA) ⁷	ug/L	"	"	"
1,2-dichloroethane ⁷	ug/L	"	"	"
Tetrachloroethylene (PCE) ⁷	Ug/L	"	"	"

Constituent	Units ¹	Sample Type	Minimum Frequency Of Analysis	Reporting Frequency
Trichloroethylene (TCE) ⁷	ug/L	"	"	"
vinyl chloride ⁷	ug/L	"	"	"
Carbon tetrachloride ⁷	ug/L	"	"	"
Acute Toxicity	TUa	"	"	"
Chronic Toxicity	Tuc	"	"	"

E. DISCHARGE MONITORING for temporary short term discharges (discharges with a duration of 6 months or less at a particular groundwater extraction site)

Discharge monitoring shall be conducted as follows:

Constituent	Units ¹	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Flowrate	gpd	NA	Daily	Monthly
Settleable Solids	mg/L	grab	Every other week	Monthly
	lb/d	"	"	"
Total Suspended Solids	mg/L	grab	"	"
	lb/d	"	"	"
Hydrogen Sulfide	mg/L	"	"	"
	lb/d	"	"	"
Total Residual Chlorine ²	μg/L	"	Daily when chlorinating	"
	lb/d	"	"	"
PH	Units	"	Every other week	"
Benzene	μg/L	grab	every other week	monthly
	lb/d	"	"	"
Ethylbenzene	μg/L	"	"	"
	lb/d	"	"	"
Toluene	μg/L	"	"	"
	lb/d	"	"	"
Xylene	μg/L	"	"	"
	lb/d	"	"	"
Total Petroleum Hydrocarbons ⁴	mg/L	"	"	"
	lb/d	"	"	"
Methyl Tertiary Butyl Ether (MTBE)	ug/L	"	"	"
Tributyltin (TBT)	μg/L	"	quarterly	quarterly
	lb/d	"	"	"
Arsenic	μg/L	"	Every other month	"
	lb/d	"	"	"
Cadmium	μg/L	"	"	"
	lb/d	"	"	"
Chromium ⁵	μg/L	"	"	"
	lb/d	"	"	"
Copper	μg/L	"	"	"

Constituent	Units ¹	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Lead	lb/d μg/L	"	"	"
Mercury	lb/d μg/L	"	"	"
Nickel	lb/d μg/L	"	"	"
Silver	lb/d μg/L	"	"	"
Zinc	lb/d μg/L	"	"	"
Cyanide	lb/d μg/L	"	"	"
Phenolic Compounds (nonchlorinated)	lb/d μg/L	"	Quarterly	"
Chlorinated Phenolics	lb/d μg/L	"	"	"
Base/Neutrals ³	lb/d ug/L	"	"	"
1,1,2,2-tetrachloroethane (PCA) ⁷	ug/L	"	"	"
1,1,1-trichloroethane (TCA) ⁷	mg/L	"	"	"
1,1,2-trichloroethane (TCA) ⁷	ug/L	"	"	"
1,2-dichloroethane ⁷	ug/L	"	"	"
Tetrachloroethylene (PCE) ⁷	ug/L	"	"	"
Trichloroethylene (TCE) ⁷	ug/L	"	"	"
Vinyl chloride ⁷	ug/L	"	"	"
Carbon tetrachloride ⁷	ug/L	"	"	"
Acute Toxicity	TUa	"	"	"
Chronic Toxicity ⁶	TUc	"	"	"

F. DISCHARGE MONITORING for Groundwater Extraction Operations associated with Sewer System Replacement Construction Projects (In addition to those Constituents in Monitoring Provision D. or E.)

Constituent	Units ¹	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Total Coliform	MPN/100ml	Grab	Weekly	Monthly
Fecal Coliform	"	"	"	"
Dissolved Oxygen	mg/L	"	"	"

G. BIOMONITORING

The presence of acute toxicity will be determined as specified in *Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms* (EPA 600/4-90-027F, August, 1993 or subsequent editions). Within 12 months of the expiration date of the NPDES permit, the enrollee shall conduct a toxicity test on a 24-hour composite effluent sample. The enrollee shall submit the results of the Acute Toxicity Test as part of the application for permit renewal. Samples shall be taken at a representative sampling location. The enrollee shall conduct a 96-hour static-renewal test with the Three Spine Stickleback (*Gasterosteus aculeatus*). The effluent concentrations will be 100%, 75%, 50%, 25%, and 12.5% and a control. The effluent test must be conducted with concurrent reference toxicant tests. Both the reference toxicant and the effluent test must meet all test acceptability criteria as specified in the acute manual. If the test acceptability criteria are not achieved, then the permittee must re-sample and re-test within 14 days. If acceptable test results are not achieved on the re-test, a toxicity reduction evaluation (TRE) must be implemented.

Acute toxicity test results will be expressed as TU_a , which equals $100/NOAEC$. No Observable Adverse Effect Concentration (NOAEC) is the highest concentration at which survival is not significantly different from the control in a 96-hour renewal test.

H. TOXICITY REDUCTION EVALUATION (TRE)

The enrollee shall develop a Toxicity Reduction Evaluation (TRE) workplan. The workplan shall be subject to the approval of the Executive Officer and shall be modified as directed by the Executive Officer. Enrollees shall submit the TRE workplan to the Executive Officer upon request of the Executive Officer. The TRE workplan shall be developed no later than six months after adoption of this Order in accordance with the following manuals:

- a) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070).
- b) Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F).
- c) Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080).
- d) Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081).

If toxicity-testing results show a violation of any acute toxicity limitation identified in Discharge Specification B.2 of this Order, the enrollee shall:

- a) Take all reasonable measures necessary to immediately minimize toxicity; and
- b) Increase the frequency of the toxicity test(s) that showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.

If the Executive Officer determines that toxicity testing shows consistent violation of any acute toxicity limitation identified in Discharge Specification B.2 of this Order, the enrollee shall conduct a TRE that includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the enrollee shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in Discharge Specification B.2 of this Order.

Within fourteen days of completion of the TRE, the enrollee shall submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with all the toxicity limitations of this Order and to prevent recurrence of violations of those limitations, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Executive Officer.

I. RECEIVING WATER MONITORING (The Executive Officer may require any enrollee with an existing permanent or long term groundwater extraction operation to implement a receiving water monitoring program if such monitoring would be useful in evaluating compliance with this permit and/or additional conditions specified in the authorization letter.)

J. SEDIMENT MONITORING (The Executive Officer may require any enrollee with an existing permanent or long term groundwater extraction operation to implement a sediment monitoring program if such monitoring would be useful in evaluating compliance with this permit and/or additional conditions specified in the authorization letter.)

K. ANNUAL SUMMARY OF MONITORING DATA

A summary of monitoring data for the past year shall be submitted to the Regional Board prior to January 30 of each year. The report shall contain both tabular and graphical summaries of the previous year's data.

L. PROVISIONS

All reports submitted in response to this Order shall comply with signatory requirements specified in Reporting Requirement E.12 of this Order.

The enrollee shall implement the above monitoring program on the first day of the month following the effective date of this Order.

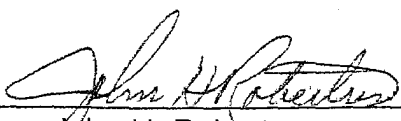
M. REPORTING FREQUENCY

Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

REPORTING FREQUENCY	REPORT PERIOD	REPORT DUE
Monthly	January*, February March, April, May June, July, August September, October November, December	By the 30th day of the following month*.
Quarterly	January - March April - June July - September October - December	April 30 July 30 October 30 January 30
Semiannual	January - June July - December	July 30 January 30
Annual	January - December	January 30

* Note: The monthly report for January is due no later than February 28.

Ordered By:


John H. Robertus
Executive Officer
June 14, 2000

ENDNOTES**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

Endnote references for Monitoring and Reporting Program No. 2000-90, General Waste Discharge Requirements for Temporary Groundwater Extraction Waste Discharges to San Diego Bay and Storm Drains or other Conveyance Systems Tributaries Thereto, San Diego County.

1. Units are as follows:

ml/L=milliliters per liter, mg/L= milligrams per liter $\mu\text{g/L}$ =micrograms per liter, lb/d=pounds per day,
GPD=gallons per day
MPN/ml=most probable number per milliliter

2. Total Chlorine Residual must be monitored if any portion of the dewatering waste stream is chlorinated.

3. Base/Neutral organic compounds are listed in 40 CFR 136.

4. All groundwater dewatering operations and only those groundwater remediation projects involving only diesel fuels shall use the California Department of Health Services recommended analytical procedure contained in the Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989 (LUFT Manual) for determining total petroleum hydrocarbons - diesel concentrations in the discharge unless other analytical methods are specified by the Regional Board. Those groundwater remediation projects involving only gasoline shall use standard analytical techniques contained in the LUFT Manual for the determination of TPH concentration in the discharge unless other methods are specified by the Regional Board.

5. The hexavalent chromium limit may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for hexavalent chromium and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.

6. Chronic toxicity monitoring for short term groundwater extraction waste discharge operations may be deleted by the Executive Officer.

7. Use USEPA Method Number 624(GCMS) for these constituents. The Executive Officer may waive monitoring requirements for these constituents in cases where the enrollee identifies and requests use of an appropriate "indicator constituent" in lieu of these constituents.

**ATTACHMENT A
ENCLOSED BAYS AND ESTUARIES POLICY
DISCHARGE PROHIBITIONS**

1. New discharges of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, which are not consistently treated and discharged in a manner that would enhance the quality of receiving waters above that which would occur in the absence of the discharge, shall be prohibited.
2. The discharge of municipal and industrial waste sludge and untreated sludge digester supernatant, centrate, or filtrate to enclosed bays and estuaries shall be prohibited.
3. The deposition of rubbish or refuse into surface waters or at any place where they would be eventually transported to enclosed bays or estuaries shall be prohibited.
4. The direct or indirect discharge of silt, sand, soil clay, or other earthen materials from onshore operations including mining, construction, agriculture, and lumbering, in quantities which unreasonably affect or threaten to affect beneficial uses shall be prohibited.
5. The discharge of materials of petroleum origin in sufficient quantities to be visible or in violation of waste discharge requirements shall be prohibited, except when such discharges are conducted for scientific purposes. Such testing must be approved by the Executive Officer of the Regional Board and the Department of Fish and Game.
6. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste shall be prohibited.
7. The discharge or by-passing of untreated waste to bays and estuaries shall be prohibited.

ATTACHMENT B
BASIN PLAN WASTE DISCHARGE PROHIBITIONS

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by Section 13050 of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, is prohibited.
2. The discharge of waste to land, except as authorized by waste discharge requirements of the terms described in California Water Code Section 13264 is prohibited.
3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredge or fill material permit (subject to the exemption described in California Water Code Section 13376) is prohibited.
4. The discharge of treated or untreated waste to lakes or reservoirs used for municipal water supply, or to inland surface water tributaries thereto, is prohibited.
5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the enrollee is prohibited unless the discharge is authorized by the Regional Board.
7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner that may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.
8. Any discharge to a storm water conveyance system that is not composed entirely of "storm water" is prohibited unless authorized by the Regional Board. [Federal Regulations 40 CFR 122.26 (b) defines storm water as storm water runoff, snow melt runoff, and surface runoff and drainage.]

9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.
10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.
11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.
12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.
13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.
14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities that cause deleterious bottom deposits, turbidity or discoloration in waters of the state or that unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.
15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.
16. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.
17. The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at mean lower low water (MLLW) is prohibited.
18. The discharge of treated sewage from vessels that do not have a properly functioning US Coast Guard certified Type I or Type II marine sanitation device to portions of San Diego Bay that are greater than 30 feet deep at MLLW is prohibited.

Attachment C
Standard Provisions

1. The following sections of 40 CFR are incorporated into this permit by reference:
 - a. 122.5 *Effect of a permit*
 - b. 122.21 *Application for a permit*
 - c. 122.22 *Signatories to permit applications and reports*
 - d. 122.41 *Conditions applicable to all permits*
 - e. 122.61 *Transfer of permits*
 - f. 122.62 *Modification or revocation of permits*
 - g. 122.63 *Minor modifications of permits*
 - h. 122.64 *Termination of permits*
2. *Review and revision of permit.* Upon application by any affected person, or on its own motion, the Regional Board may review and revise this permit. [CWC §13263(e)]
3. *Termination or modification of permit.* This permit may be terminated or modified for causes, including, but not limited to, all of the following:
 - (a) Violation of any condition contained in this permit.
 - (b) Obtaining this permit by misrepresentation, or failure to disclose fully all relevant facts.
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge. [CWC §13381]
4. *Material change:* Not less than 180 days prior to any material change in the character, location, volume, or amount of waste discharge, the enrollee shall submit a technical report describing such changes. Such changes include but are not limited to the following:
 - (a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
 - (b) Significant change in disposal method, e.g., change from land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

- c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
 - (d) Increase in flow beyond that specified in the waste discharge requirements.
 - (e) Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CWC 13372, 13376, 13264, 23 CCR 2210]
 - (f) Any substantial change in the amount or characteristics of pollutants used, handled, stored, or generated.
 - (g) Any new discharge of pollutants or new potential pollutant source.
 - (h) Other circumstances which could result in a material change in the character, amount, or location of discharges. [CWC 13372, 13264, 23 CCR 2210]
5. *Transfers*: When this permit is transferred to a new owner or operator, such requirements as may be necessary under the California Water Code may be incorporated into this permit.
6. *Conditions not stayed*: The filing of a request by the Enrollee for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.
7. *Monitoring and Reporting Program*: The Enrollee shall conduct monitoring and submit reports in accordance with Monitoring and Reporting Program (MRP) No. 2000-90. Monitoring results shall be reported at the intervals specified in MRP No. 2000-90. [CWC 13267 & 13383, 23 CCR 2230, 40 CFR 122.43(a), 122.44(l)(4), 122.48]
8. *Availability*: A copy of this Order shall be kept at a readily accessible location and shall be available to on-site personnel at all times.
9. *Duty to minimize or correct adverse impacts*: The enrollee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
10. *Responsibilities, liabilities, legal action, penalties*: The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the Clean Water Act (CWA). [CWC §13385, 13387]

Nothing in this Order shall be construed to protect the enrollee from its liabilities under federal, state, or local laws.

Except as provided for in 40 CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the enrollee from civil or criminal penalties for noncompliance.

Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the enrollee from any responsibilities, liabilities, or penalties to which the enrollee is or may be subject to under Section 311 of the CWA.

Nothing in this Order shall be construed to preclude institution of any legal action or relieve the enrollee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authoring preserved by Section 510 of the CWA.

11. *Noncompliance:* Any noncompliance with this permit constitutes violation of the California Water Code and is grounds for denial of an application for permit modification. [40 CFR 122.41 (a)]
12. *Discharge is a privilege:* No discharge of waste into waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights. [CWC §13263(g)]
13. *Permittee:* For the purposes of this permit, the term "permittee" used in parts of 40 CFR incorporated into this permit by reference and/or applicable to this permit shall have the same meaning as the term "enrollee" used elsewhere in this permit.
14. *Director:* For the purposes of this permit, the term "Director" used in parts of 40 CFR incorporated into this permit by reference and/or applicable to this permit shall have the same meaning as the term "Regional Board" used elsewhere in this permit, except that in 40 CFR 122.41(h) & (i), "Director" shall mean "Regional Board, SWRCB, and USEPA."
15. *Effective date:* This Order shall become effective ten days after the date of its adoption provided the USEPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.
16. *Expiration:* This Order expires June 14, 2005. [40 CFR 122.43, 122.44(h), 122.46]
17. *Continuation of expired permit:* After this permit expires, the terms and conditions of this permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits are complied with. [40 CFR 122.6, 23 CCR 2235.4]

18. *Applications:* Any application submitted by the enrollee for reissuance or modification of this permit shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the California Water Code and the California Code of Regulations.
19. *Confidentiality:* Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this permit will be considered confidential, and all such information and documents shall be available for review by the public at the office of the Regional Board.
20. *Severability:* The provisions of this order are severable, and if any provision of this order, or the application of any provisions of this order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this order shall not be affected thereby.
21. *Discharge Monitoring Quality Assurance (DMQA) Program:* Then Enrollee shall conduct appropriate analyses on any sample provided by EPA as part of the DMQA program. The results of such analyses shall be submitted to EPA's DMQA manager. [SWRCB/USEPA 106 MOA]
22. *Pollution, Contamination, Nuisance:* The handling, transport, treatment, or disposal of waste or the discharge of waste to waters of the state in a manner which causes or threatens to cause a condition of pollution, contamination, or nuisance, as those terms are defined in CWC 13050, is prohibited.
23. *Additional Reporting Requirements:* [40 CFR 122.42(a)] In addition to the reporting requirements under 40 CFR 122.41 (l), all existing manufacturing, commercial, mining, and silvicultural discharges must notify the Regional Board as soon as they know or have reason to believe:
 - (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, of that discharge will exceed the highest of the following "notification levels:"
 - (a) One hundred micrograms per liter (100 µg/l);
 - (b) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2, 4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (c) The level established by the Regional Board in accordance with 40 CFR 122.44(f).

- (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
- (a) Five hundred micrograms per liter (500 µg/l)
 - (b) One milligram per liter (1 mg/l) for antimony;
 - (c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - (d) The level established by the Regional Board in accordance with 40 CFR 122.44(f).

24. *Report Submittal:* Reports and other documents required under this Order shall be submitted to:

California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Boulevard, Suite A
San Diego, California 92124-1324
Phone - (858) 467-2952
Fax - (858) 571-6972

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On June 13, 1996, this Regional Board adopted Order No. 96-41, NPDES Permit No. CAG919002, "General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges From Construction and Remediation Projects to Surface Waters within the San Diego Region, Except for San Diego Bay".
2. 40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same type of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.
3. Existing and proposed discharges of groundwater extraction waste to surface waters in the San Diego Region from construction groundwater extraction, foundation groundwater extraction, and groundwater extraction related to cleanup projects (collectively groundwater extraction waste discharges):
 - a. Result from similar operations (all involve extraction and discharge of groundwater);
 - b. Are the same type of wastes (all are groundwater containing or potentially containing petroleum hydrocarbons, solvents, or other pollutants);
 - c. Require similar effluent limitations for the protection of the beneficial uses of similar receiving waters;
 - d. Require similar monitoring; and
 - e. Are more appropriately regulated under a general permit rather than individual permits.

Discharges of extracted groundwater to San Diego Bay, are regulated under Order No. 2000-90 (NPDES No. CAG919001), *General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto*.

4. Extracted Groundwater may contain pollutants which may be found in groundwaters as a result of decomposition of organic materials (e.g., hydrogen sulfide), leaking underground storage tanks and fuel lines, surface spills, sewage, past use of liquid waste impoundments, or the potential presence of nutrients (phosphorus and nitrogen compounds).
5. The *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan), adopted on July 23, 1997, identifies beneficial uses and establishes water quality objectives, general requirements for management of waste discharged to the ocean, quality requirements for waste discharges, discharge prohibitions, and general provisions for state ocean waters to be protected. Beneficial uses of the bays and estuaries in the San Diego Region are similar to those of the Ocean Waters of the State.

6. If a lagoon or estuary is not open to the Pacific Ocean and consists of fresh water, discharges shall comply with the requirements established in this Order for discharges to inland surface waters.
7. The *Comprehensive Water Quality Control Plan Report, San Diego Basin (9)* (Basin Plan), adopted on September 8, 1994, and subsequently approved by the State Water Resources Control Board (SWRCB) on December 13, 1994, designates beneficial uses, narrative and numerical water quality objectives, and prohibitions which are applicable to the groundwater extraction waste discharges regulated under this Order. The Basin Plan contains prohibitions applicable to surface waters (see Attachment A).
8. On March 2, 2000, the SWRCB adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy). The Policy implements the provisions promulgated by the U.S. Environmental Protection Agency (U.S. EPA) in the California Toxics Rule (CTR). Criteria for 126 priority pollutants are established by the CTR.
9. Section 5.3 of the Policy states that, where site-specific conditions in individual water bodies or watersheds differ sufficiently from statewide conditions and those differences cannot be addressed through other provisions of this policy, the SWRCB may, in compliance with the California Environmental Quality Act (CEQA), subsequent to a public hearing, and with the concurrence of the U.S. EPA, grant an exception to meeting a priority pollutant criterion/objective or any other provision of this Policy where the SWRCB determines:
 - a. The exception will not compromise protection of enclosed bay, estuarine, and inland surface waters for beneficial uses; and
 - b. The public interest will be served.
10. Pursuant to Section 5.3 of the Policy, the Regional Board, after compliance with the California Environmental Quality Act (CEQA), may allow short-term or seasonal exceptions from meeting the priority pollutant criteria/objectives if determined to be necessary to implement control measures either:
 - a. For resource or pest management (i.e., vector or weed control, pest eradication, or fishery management) conducted by public entities to fulfill statutory requirements, including, but not limited to, those in the California Fish and Game, Food and Agriculture, Health and Safety, and Harbors and Navigation codes; or
 - b. Regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code. Categorical exceptions may also be granted for draining municipal storm water conveyances for cleaning or maintenance, or for draining water treatment facilities for cleaning or maintenance.
11. On April 28, 2000, the USEPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California to protect human health and the environment. The CTR regulations, codified in 40 CFR 131.38, establish numeric criteria for water quality standards for priority toxic pollutants for the State of California.
12. In order to protect the beneficial uses of receiving waters from excessive concentrations of pollutants as a result of groundwater extraction waste discharges, this Order does not provide for a mixing zone or a

zone of initial dilution except when the discharge is to the surf zone. This Order allows initial dilution of 3 in a surf zone.

13. In order to minimize potential impacts of discharges of groundwater containing pollutants on the beneficial uses of surface waters, this Order contains effluent pollutant concentration limitations based on criteria for the protection of aquatic species, the protection of human health from consumption of aquatic organisms, maximum contaminant levels (MCL) for potable drinking water supplies, and/or best available technology economically achievable (BAT)² for the removal of organic pollutants commonly found in petroleum-and solvent-contaminated groundwaters.
14. Effluent limitations for volatile and base/neutral compounds are equal to the practical quantitation level (PQL) if the PQL is lower than water quality objectives for the protection of beneficial uses (such compounds will essentially be non-detectable in discharges of groundwater extraction wastes). When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCB's) concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the Method Detection Limit (MDL) for that parameter.
15. Any discharge of untreated groundwater to a surface water may cause or contribute to excursions above narrative water quality objectives contained in the Ocean Plan and/or Basin Plan as a result of the potential discharge of petroleum related compounds, solvents, and metals.
16. Since water quality criteria for many of the petroleum hydrocarbon compounds have not been proposed or established by the SWRCB or USEPA, this Order requires monitoring of groundwater discharged to surface waters using "indicator constituents"³ for petroleum related compounds. This Order establishes effluent limitations and monitoring requirements for BTEX and TPH which will ensure that volatile petroleum related compounds⁴ will be removed from the waste stream. This Order also establishes effluent limitations and monitoring requirements for indicator constituents of diesel fuels (TPH - diesel)⁵ commonly found in polluted groundwaters.
17. It has been demonstrated that volatile organic compounds (e.g., benzene, toluene, ethylbenzene, xylene, etc.) and many other organic pollutants in groundwater can be reduced to less than current analytical detection limits (0.5 to 10 micrograms per liter (µg/L) in groundwater using available standard treatment technologies⁶. Thus, best available technology economically achievable for the removal of organic compounds is the basis for effluent limitations for BTEX and other volatile hydrocarbons, and base/neutral compounds, in Discharge Specifications B.1, B.2, B.3, and B.4 of this Order.
18. In establishing effluent limitations based on BAT, the following factors were taken into consideration:
 - a. The appropriate technology for the category or class of which the discharger is a member;
 - b. The age of equipment and facilities involved;
 - c. The process employed;
 - d. The engineering aspects of the application of various types of control techniques;
 - e. Process changes;

- f. The cost of achieving such effluent reduction;
 - g. Non-water quality environmental impact (including energy requirements); and
 - h. Known and potential groundwater contaminants in the San Diego region.
19. The Porter-Cologne Water Quality Control Act (January 1, 2000), Section 13272.1 and Section 13285, address discharges of MTBE. The California Department of Health Services (DOHS) last update (March 9, 2000) of California's Maximum Contaminant Levels for MTBE states the following:
- As established by the DOHS, the primary MCL is 13 µg/L MTBE and the secondary MCL is 5 µg/L.
20. Enrollees under this general permit that are in close proximity of the ocean, a bay, harbor, lagoon or estuary, may encounter saline groundwater, in which case the use of EPA Method 1638, and EPA Method 1640 (Clean Technologies) would be appropriate for the analysis of metals.
21. The daily maximum discharge flowrate limitation for each discharge will be specified in the discharge Enrollment Letter from the Regional Board. Mass emission rate limitations shall be determined using the discharge flowrate and effluent concentration limitations specified in Discharge Specifications B.1, B.2, B.3, and B.4, of this Order.
22. Pursuant to 40 CFR 131.12 and SWRCB Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (collectively "antidegradation policies"), the Regional Board shall ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies.
23. The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of the State and Federal "antidegradation" policies.
24. Discharge criteria established under Sections 301, 302, 304, 306, 307, and 403 of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), are applicable to discharges of groundwater extraction waste.
25. This Order does not preempt or supersede the authority of other State or local agencies to prohibit, restrict, or control the discharge of groundwater extraction waste discharges from facilities subject to this permit in any manner subject to their authority. This Order does not apply to discharges regulated by a municipal stormwater permit. Discharges of groundwater via a storm drain conveyance system during dry weather has the potential to carry pollutants typically found in urban runoff (i.e.: coliform, heavy metals, pesticides, herbicides, oil & grease, petroleum products), that would normally remain in the storm drain system until the first significant rain event of the wet season, to a water of the state, thus creating a nuisance condition.
26. This Order does not apply to small dewatering sumps (utility vaults) necessary to protect public utilities (e.g., electrical, telephone, municipal, sewer pump stations, and other utilities vital to the public) and which have intermittent discharges. Utility vault discharges are regulated by State Water Resources Control Board General NPDES Permit No. 96-12-DWQ.

27. Pursuant to Section 402 of the CWA, and amendments thereto, this Order shall serve as a general NPDES permit for groundwater extraction waste discharges to surface waters, other than San Diego Bay, within the San Diego Region for those so authorized⁷ by the Regional Board.
28. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
 - a. Beneficial uses to be protected and the quality objectives reasonably required for that purpose;
 - b. Other waste discharges;
 - c. The need to prevent nuisance;
 - d. Past, present, and probable future beneficial uses of the waters under consideration;
 - e. Environmental characteristics of the waters under consideration;
 - f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;
 - g. Economic considerations;
 - h. The need for developing housing within the region;
 - i. The need to develop and use recycled water.
29. The issuance of this general permit for the discharge of groundwater extraction waste to surface waters in the San Diego Region is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (Public Resource Code, Division 13, Chapter 3, Section 21000 et seq.) in accordance with the California Water Code, Section 13389.
30. The Regional Board has notified all known interested parties of its intent to reissue a general NPDES permit for the discharge of groundwater extraction waste to surface waters in the region.
31. The Regional Board has, at a public meeting, heard and considered all comments pertaining to the discharge of groundwater extraction waste to surface waters in the region.
32. All groundwater extraction waste discharges currently regulated by Regional Board Order No. 96-41 shall be regulated under the terms and conditions of this Order.

IT IS HEREBY ORDERED, that each authorized discharger (hereinafter Enrollee), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of groundwater to surface waters is prohibited unless authorized, exempted, or issued an individual NPDES permit by the Regional Board.
2. The discharge of wastes to areas designated by the SWRCB, and recommended by the Regional Board, as areas of special biological significance is prohibited. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.
3. The addition of pollutants to extracted groundwater to be discharged to surface waters is prohibited. The only exception to this prohibition is that chemicals (i.e.: chlorine) may be added to extracted groundwater to control biofouling in treatment systems, provided that extracted groundwater discharged to surface waters meets the effluent limitations for such chemicals established by this Order and in the discharge Enrollment Letter issued by the Regional Board.
4. The discharge of groundwater extraction waste to surface waters from permanent^a groundwater extraction operations in basins with designated beneficial uses of industrial, agricultural, or municipal and domestic supply are prohibited unless such extracted groundwater (not used beneficially) is used beneficially (*Application Requirements*, Section F.17, and F.18). If the Enrollee of such extracted groundwater wishes to discharge to surface waters, it shall be the responsibility of the Enrollee to obtain an individual NPDES Permit for the discharge.
5. The discharge of groundwater extraction waste to enclosed bays¹, harbors, lagoons, and estuaries, or tributaries thereto, is prohibited unless the Enrollee demonstrates to the satisfaction of the Regional Board that alternative disposal sites (e.g., surf zone) are not practicable as required in *Application Requirements*, Sections F.17, and F.18.

^a

This prohibition does not apply to small dewatering sumps, necessary to protect public utilities (e.g., electrical, telephone, municipal sewer pumping stations, and other utilities vital to the public), and which have intermittent discharges. These discharges will be regulated, where necessary, under separate NPDES permits.

"Permanent" groundwater extraction operations shall refer to extraction operations for structures which 1) are not designed or constructed to withstand hydrostatic pressure or do not preclude infiltration of groundwater, and, 2) require removal of groundwater to prevent water infiltration to the structure(s). For purposes of this Order, "new permanent" groundwater extraction operations refers to extraction operations which are initiated after the date of adoption of this Order in cases in which the following conditions apply:

1. If the project proponent has not submitted a complete Report of Waste Discharge (RWD) to the Regional Board for a proposed discharge of extraction operation prior to adoption of this Order, the discharge is considered a discharge from a new permanent groundwater extraction operation and is prohibited unless the groundwaters are used beneficially, unless:
2. Prior to adoption of this Order, the project proponent has applied for the necessary building permits from the proper agencies.

6. The discharge of groundwater extraction waste to any surface water from a groundwater extraction project after the date of completion of construction of structures requiring groundwater extraction, or from a groundwater remediation operation after the date the groundwater has been remediated to the satisfaction of the Regional Board, is prohibited.
7. The discharge of groundwater in excess of the flowrate specified in each Enrollee's Enrollment Letter is prohibited unless the Enrollee obtains a revised discharge Enrollment Letter authorizing an increased flowrate.
8. No individual pesticide or combination of pesticides shall be present in the water column, sediments, or biota at concentration(s) that adversely affect beneficial uses. Pesticides shall not be present at levels which will bioaccumulate in aquatic organisms to levels which are harmful to human health, wildlife or aquatic organisms.

Water designated for use as domestic or municipal²¹ supply (MUN) (drinking water) shall not contain concentrations of pesticides in excess of the maximum contaminant levels specified in California Code of Regulations, Title 22, Table 64444-A of Section 64444 (Organic Chemicals). (See Basin Plan Chapter 3-13).

9. Compliance with the waste discharge prohibitions contained in the Basin Plan and listed in Attachment A hereto is a condition of this Order.
10. Compliance with Discharge Prohibitions as stated in the 1974 Bays and Estuaries Policy (Attachment C) is required as a condition of this Order.
11. The discharge of groundwater extraction waste to a stormwater conveyance system without notifying and receiving authorization from the agency having jurisdiction over the stormwater conveyance system is prohibited.
12. The discharge of wastes tributary or directly to areas designated as being of special biological significance by the SWRCB is prohibited. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.

B. DISCHARGE SPECIFICATIONS⁸

1. DISCHARGES TO BAYS AND HARBORS

The discharge of groundwater extraction waste to Mission Bay, Oceanside Harbor, Del Mar Boat Basin, or Dana Point Harbor shall not contain pollutants in excess of the following effluent limitations:

Constituent	Unit	6-Month Median	AMEL ³⁶	Daily Maximum	Instantaneous Maximum	Basis ⁹
Settleable Solids	ml/L	---	1	---	0.2	BPJ ¹⁰
Total Suspended Solids	mg/L	---	30	---	50	"
Hydrogen Sulfide	µg/L	---	2	4	10	BPJ ¹⁰

Constituent	Unit	6-Month Median	AMEL ³⁶	Daily Maximum	Instantaneous Maximum	Basis ⁹
Total Residual Chlorine (TRC) ¹²	µg/L	2	---	8	60	OP ¹¹
Ammonia (as nitrogen)	µg/L	600	---	2,400	6,000	"
pH	Units	Within the limits of 6.0 to 9.0 at all times.				OP ¹¹
Xylene	µg/L	---	---	---	5	BPJ/BAT ¹³
Total Petroleum Hydrocarbons	mg/L	---	---	---	0.5	BPJ/BAT ¹³
Phenolic Compounds (Non-chlorinated)	µg/L	30	---	120	300	BPJ/BAT ¹³
Chlorinated Phenolics	µg/L	1	---	4	10	"
Endosulfan	ng/L	9	---	18	27	OP ¹¹
HCH ²⁹	ng/L	4	---	8	12	"
Tributyltin	µg/L	---	0.005	---	---	OP ¹¹
Dichloromethane	µg/L	---	---	---	5	"
Halomethanes	µg/L	---	---	---	5	BPJ/BAT ¹³
PAHs	ng/L	---	8.8	---	---	"
TCDD Equivalents	pg/L	---	0.004	---	---	OP ¹¹
Acute Toxicity	TUa	---	---	---	0.59	BPJ ¹⁰
Chronic Toxicity	TUc	---	---	1	---	OP ¹¹
Base/Neutrals ¹⁶	µg/L	---	---	---	10	BPJ/BAT ¹³
Dissolved Oxygen	mg/L	Shall not be less than 5 at anytime.				BPJ ¹⁰
Turbidity	NTU	Shall not exceed the turbidity of the receiving water.				
Total Coliform	MPN/100mL	---	---	---	1000	BPJ/BAT ¹³
Fecal Coliform	MPN/100mL	---	---	---	200	BPJ/BAT ¹³
126 Priority Pollutants (Including metals)*	40 CFR 131.38 - Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.					Attachment D
Note:	ml/L = milliliters per liter pg/L = picograms per liter	mg/L = milligrams per liter TUa = acute toxicity units	µg/L = micrograms per liter TUc = chronic toxicity units	ng/L = nanograms per liter NTU = Nephelometric Turbidity Units		

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed in the matrix correspond to a total hardness of 100 mg/L.

2. DISCHARGES TO LAGOONS/ESTUARIES

The discharge of groundwater extraction waste discharges to saline¹⁷ lagoons (only Buena Vista Lagoon is fresh water) and estuaries of the region shall not contain pollutants in excess of the following effluent limitations:

Constituent	Unit	6-Month Median	AMEL ³⁶	Daily Maximum	Instantaneous Maximum	Basis
Total Nitrogen ¹⁸	mg/L	1.0	---	---	2.0	BPJ ¹⁰
Total Phosphorus ¹⁸	mg/L	0.1	---	---	0.2	"
Settleable Solids	ml/L	---	0.1	---	50	BPJ ¹⁰
Hydrogen Sulfide	µg/L	---	2	4	10	"
Total Residual Chlorine (TRC) ¹²	µg/L	2	---	8	60	OP ¹¹
Ammonia (as nitrogen)	µg/L	600	---	2,400	6,000	"
pH	Units	Within the limits of 7.0 to 8.5 at all times.				"
Xylene	µg/L	---	---	---	5	"

Constituent	Unit	6-Month Median	AMEL ³⁶	Daily Maximum	Instantaneous Maximum	Basis
Total Petroleum						
Hydrocarbons	mg/L	---	---	---	0.5	OP ¹¹
Phenolic Compounds (Non-chlorinated)	µg/L	30	---	120	300	"
Chlorinated Phenolics	µg/L	1	---	4	10	"
Tributyltin	µg/L	---	0.005	---	---	OP ¹¹
Acute Toxicity	TUa	---	---	---	0.59	BPJ ¹⁰
Chronic Toxicity	TUc	---	---	1	---	OP ¹¹
Base/Neutrals ¹⁶	µg/L	---	---	---	10	" "
Dissolved Oxygen	mg/L	Shall not be less than 5 at anytime.				BPJ ¹⁰
Turbidity	NTU	Shall not exceed the turbidity of the receiving water.				"
Total Coliform	MPN/100mL	---	---	---	1000	BPJ ¹⁰
Fecal Coliform	MPN/100mL	---	---	---	200	"
126 Priority Pollutants (Including metals)*	40 CFR 131.38 - Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.					Attachment D
Note:	ml/L = milliliters per liter pg/L = picograms per liter	mg/L = milligrams per liter TUa = acute toxicity units	µg/L = micrograms per liter TUc = chronic toxicity units	ng/L = nanograms per liter NTU = Nephelometric Turbidity Units		

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body.
Values displayed in the matrix correspond to a total hardness of 100 mg/L.

3. DISCHARGES TO THE SURF ZONE²⁰

The discharge of groundwater extraction waste to the surf zone (3:1 dilution factor) shall not contain pollutants in excess of the following effluent limitations:

Constituent	Unit	6-Month Median	30-Day Average ³⁷	Daily Maximum	Instantaneous Maximum	Basis ⁹
Settleable Solids	ml/L	---	1	---	2	BPJ ¹⁰
Total Suspended Solids	mg/L	---	60	---	100	"
Total Residual Chlorine ¹²	µg/L	8	---	32	240	OP ¹¹
Ammonia (as nitrogen)	µg/l	2400	---	9600	24000	OP ¹¹
pH	units	Within the limits of 6.0 to 9.0 at all times.				OP ¹¹
Benzene	µg/L	---	---	---	5	BPJ/BAT ¹³
Ethylbenzene	µg/L	---	---	---	5	BPJ/BAT ¹³
Toluene	µg/L	---	---	---	5	" "
Xylene	µg/L	---	---	---	5	" "
Total Petroleum	mg/L	---	---	---	0.5	" "
Hydrocarbons						
Arsenic	µg/L	23	---	119	311	OP ¹¹
Cadmium	µg/L	4	---	16	40	"
Chromium (hexavalent) ¹⁴	µg/L	8	---	32	80	"
Copper	µg/L	6	---	42	114	"
Lead	µg/L	8	---	32	80	"
Mercury	µg/L	0.16	---	0.64	1.6	"
Nickel	µg/L	20	---	80	200	OP ¹¹
Silver	µg/L	2.32	---	10.7	28	"
Zinc	µg/L	56	---	296	776	"
Cyanide	µg/L	4	---	16	40	"

Constituent	Unit	6-Month Median	30-Day Average ³⁷	Daily Maximum	Instantaneous Maximum	Basis ⁹
Phenolic Compounds (Non-chlorinated)	µg/L	120	---	480	1200	OP ¹¹
Chlorinated Phenolics	µg/L	4	---	16	40	"
1,1,2,2-tetrachloroethane	µg/L	---	---	---	5	BPJ/BAT ¹³
Tributyltin	ng/L	---	5.6	---	---	OP ¹¹
1,1,1-trichloroethane	µg/L	---	---	---	5.0	BPJ/BAT ¹³
1,1,2-trichloroethane	µg/L	---	---	---	5.0	" "
Carbon tetrachloride	µg/L	---	3.6	---	---	OP ¹¹
PCBs ¹⁵	ng/L	---	0.076	---	---	OP ¹¹
Tetrachloroethylene	µg/L	---	---	---	5	BPJ/BAT ¹³
Trichloroethylene	µg/L	---	---	---	5	"
Vinyl chloride	µg/L	---	---	---	5	"
Acute Toxicity	TUa	---	1.5	---	2.5	OP ¹¹
Chronic Toxicity	TUc	---	---	1	---	"
Base/Neutrals ¹⁶	µg/L	---	---	---	10	BPJ/BAT ¹³
Dissolved Oxygen	mg/L	Shall not be less than 5.0 at any time.				BPJ ¹⁰
Turbidity	NTU	Shall not exceed the turbidity of waters outside of the surf zone.				"
Total Coliform	MPN/100Ml	---	---	---	1000	"
Fecal Coliform	MPN/100mL	---	---	---	200	"
Selenium	µg/L	60	---	240	600	OP ¹¹
Endosulfan	ng/L	36	---	72	108	"
Endrin	ng/L	8	---	16	24	"
HCH ²⁹	ng/L	16	---	32	48	OP ¹¹
Acrolein	µg/L	---	---	---	10	BPJ/BAT ¹³
Antimony	mg/L	---	4.8	---	---	OP ¹¹
bis(2-chloroethoxy) methane	µg/L	---	---	---	10	BPJ/BAT ¹³
bis(2-chloroisopropyl) ether	µg/L	---	---	---	10	" "
Chlorobenzene	µg/L	---	---	---	5	BPJ/BAT ¹³
Di-n-butyl phthalate	µg/L	---	---	---	10	" "
Dichlorobenzenes ³⁰	µg/L	---	---	---	10.0	" "
1,1-dichloroethylene	µg/L	---	---	---	5	" "
Diethyl phthalate	µg/L	---	---	---	10	" "
Dimethyl phthalate	µg/L	---	---	---	10	" "
4,6-dinitro-2-methylphenol	µg/L	---	---	---	10	" "
2,4-dinitrophenol	µg/L	---	---	---	10	" "
Fluoranthene	µg/L	---	---	---	10	" "
Hexachlorocyclopentadiene	µg/L	---	---	---	10	" "
Isophorone	µg/L	---	---	---	10	" "
Nitrobenzene	µg/L	---	---	---	10	" "
Thallium	µg/L	---	56	---	---	OP ¹¹
Acrylonitrile	µg/L	---	0.40	---	---	"
Aldrin	ng/L	---	0.09	---	---	"
Benzidine	ng/L	---	0.28	---	---	"
Beryllium	ng/L	---	132	---	---	"
bis(2-chloroethyl) ether	µg/L	---	0.18	---	---	"
bis(2-ethylhexyl) phthalate	µg/L	---	---	---	10	BPJ/BAT ¹³
Chlordane ³¹	ng/L	---	0.09	---	---	OP ¹¹

Constituent	Unit	6-Month Median	30-Day Average ³⁷	Daily Maximum	Instantaneous Maximum	Basis ⁹
Chloroform	mg/L	---	0.52	---	---	OP
DDT ³²	µg/L	---	---	---	10	BPJ/BAT ¹³
3,3-dichlorobenzidine	ng/L	---	32.4	---	---	OP ¹¹
1,2-dichloroethane	µg/L	---	---	---	5	BPJ/BAT ¹³
Dichloromethane	µg/L	---	---	---	10	" "
1,3-dichloropropene	µg/L	---	---	---	5	" "
Dieldrin	ng/L	---	0.16	---	---	OP ¹¹
2,4-dinitrotoluene	µg/L	---	10.4	---	---	OP ¹¹
1,2-diphenylhydrazine	µg/L	---	0.64	---	---	"
Halomethanes ³³	µg/L	---	---	---	5	BPJ/BAT ¹³
Heptachlor ³⁴	ng/L	---	2.88	---	---	OP ¹¹
Hexachlorobenzene	ng/L	---	0.84	---	---	"
Hexachlorobutadiene	µg/L	---	---	---	5	BPJ/BAT ¹³
Hexachloroethane	µg/L	---	10.0	---	---	OP ¹¹
N-nitrosodimethylamine	µg/L	---	29.2	---	---	"
N-nitrosodiphenylamine	µg/L	---	10.0	---	---	"
PAHs ³⁵	ng/L	---	35.2	---	---	OP ¹¹
TCDD equivalents	pg/L	---	0.015	---	---	"
Toxaphene	ng/L	---	0.84	---	---	OP ¹¹
2,4,6-trichlorophenol	µg/L	---	1.16	---	---	"

Note: ml/L = milliliters per liter
pg/L = picograms per liter

mg/L = milligrams per liter
TUa = acute toxicity units

µg/L = micrograms per liter
TUC = chronic toxicity units

ng/L = nanograms per liter
NTU = Nephelometric Turbidity Units

4. DISCHARGES TO INLAND SURFACE WATERS^a

The discharge of groundwater extraction waste to inland surface waters (including Buena Vista Lagoon) shall not contain pollutants in excess of the following effluent limitations:

GENERAL CONSTITUENTS

Constituent	Unit	AMEL ³⁶	Daily Maximum	Instantaneous Maximum	Basis ⁹
Settleable Solids	ml/L	0.1	---	0.2	BPJ ¹⁰
Total Suspended Solids	mg/L	30	---	50	"
Percent Sodium	%	---	---	60	BPJ ¹⁰
Total Nitrogen ¹⁸	mg/L	1.0	---	2.0	"
Total Phosphorus ¹⁸	mg/L	0.1	---	0.2	"
Methylene Blue					
Active Substances	mg/L	---	---	0.5	BP ¹⁹
Turbidity	NTU	Shall not exceed the ambient turbidity of the surface water at any time.			BPJ ¹⁰
Fluoride	mg/L	---	---	1.0	BP ¹⁹

^a

If the groundwater extraction waste is discharged to an inland surface water tributary to a bay, harbor, lagoon or estuary and the effluent concentration limitation for discharges to bays and harbors or lagoons and estuaries is more stringent than the effluent concentration limitation for discharges to inland surface waters, the discharge shall not contain pollutants in excess of the effluent concentration limitation for a discharge to bays and harbors or lagoons and estuaries. (The discharge shall comply with the more stringent of the two effluent pollutant concentration limitations.)

Constituent	Unit	AMEL ³⁶	Daily Maximum	Instantaneous Maximum	Basis ⁹
Hydrogen Sulfide	µg/L	2	4	10	BPJ ¹⁰
Total Residual Chlorine (TRC) ¹²	µg/L	2	8	10	"
pH	Units	Within the limits of 6.5 and 8.5 at all times.			BP ¹⁹
Acute Toxicity	TUa	---	---	0.59	BPJ ¹⁰
Chronic Toxicity	TUc	---	1	---	"
Dissolved Oxygen	mg/L	Shall not be less than 5.0 at any time in waters with designated warm fresh-water habitat beneficial uses or less than 6.0 in waters with cold fresh water habitat beneficial uses.			BP ¹⁹
Total Coliform	MPN/100mL	---	---	1000	"
Fecal Coliform	MPN/100mL	---	---	200	"

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter ng/L = nanograms per liter
pg/L = picograms per liter TUa = acute toxicity units TUc = chronic toxicity units NTU = Nephelometric Turbidity Units

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body.
Values displayed in the matrix correspond to a total hardness of 100 mg/L.

VOLATILES, METALS, PRIORITY POLLUTANTS:

Beneficial Use:		Municipal ²¹ /Potable Supply		Non-municipal/Non-potable		
		Instantaneous		Instantaneous		
Constituent	Unit	Maximum ⁴	Basis ⁵	Unit	Maximum ⁴	Basis ⁵
Dibromochloropropane	µg/L	0.2	DOHS ²²	µg/L	0.2	BPJ ⁶
Ethylene Dibromide	µg/L	0.02	DOHS ²²	µg/L	0.02	BPJ ⁶
Xylene	µg/L	5	BPJ/BAT ¹⁰	µg/L	5	BPJ ⁶
Chlorinated Phenolics	µg/L	1	DOHS ²²	µg/L	10	BPJ/BAT ¹⁰
Remaining Base/Neutral Compounds ¹⁶	µg/L	10	BPJ/BAT ¹⁰	µg/L	10	BPJ/BAT ¹⁰
Total Petroleum Hydrocarbons	mg/L	0.5	"	mg/L	0.5	"
Iron**	mg/L	0.3	"	mg/L	0.3	"
Manganese**	mg/L	0.05	"	mg/L	0.05	"
MTBE ^{***, 38}	µg/L	5	DOHS ²²			
126 Priority Pollutants (Including metals)*	40 CFR 131.38 - Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.					Attachment D

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter TUa = acute toxicity units
TUc = chronic toxicity units

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body.
Values displayed in the matrix correspond to a total hardness of 100 mg/L.

** For the Mission San Diego (7.11) and Sycamore Canyon (7.12) Hydrographic Subareas, the effluent limitation for iron shall be 1.0 mg/L and the effluent limitation for manganese shall be 1.0 mg/L. Sycamore Canyon Subarea, a portion of the Santee Hydrologic Subarea, includes the watersheds of the following north-south trending canyons: Oak Creek, Spring Canyon, Little Sycamore Canyon, Quail Canyon, and Sycamore Canyon. The Sycamore Canyon Subarea extends eastward from the Mission San Diego HSA to the confluence of the San Diego River and Forester Creek, immediately south of the Santee Lakes.

*** The primary MCL of 13 µg/L is for the protection of human health, the secondary MCL of 5 µg/L is for aesthetic qualities of drinking water (taste and odor). The secondary MCL of 5 µg/L will be used in this Order, and only applies to discharges to receiving waters designated as Municipal/Potable Supply.

5. Groundwater extraction waste discharged to surface waters must be essentially free of:
 - a. Material that is floatable or will become floatable upon discharge.
 - b. Settleable material or substances that form sediments which degrade²³ benthic communities or other aquatic life.
 - c. Substances which will accumulate to toxic levels in aquatic sediments or biota.
 - d. Substances that significantly²⁴ decrease the natural light to benthic communities and other aquatic life.
 - e. Materials that result in aesthetically undesirable discoloration of surface waters.
6. Groundwater extraction waste discharged to surface waters shall not cause natural water quality conditions to be altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater.
7. Groundwater extraction waste discharged to surface waters shall be discharged in such a manner as to provide maximum protection to aquatic environments.
8. Groundwater extraction waste that contains pathogenic organisms or viruses shall be discharged a sufficient distance from shellfishing and water-contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard shall be used.
9. The Enrollee shall comply with all items of the “40 CFR Standard Provisions References” that are part of this Order (Attachment B).

C. RECEIVING WATER LIMITATIONS²⁵

The discharge of extracted groundwater from any site shall not, separately or jointly with any other discharge, cause violations of the following water quality objectives in surface waters:

1. **Bacterial Characteristics of Marine Waters (Surf Zone)** **Including Bays, Harbor, Lagoons and Estuaries**

(a) Water-Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water-contact sports, as determined by the Regional Board, but including all Kelp Beds²⁶, the following bacterial objectives shall be maintained throughout the water column:

1. Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any consecutive 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample, when verified by a repeat sample taken within 48 hours, shall exceed 10,000 per 100 ml (100 per ml).
2. The fecal coliform density based on a minimum of not less than five samples for any consecutive 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any consecutive 60-day period exceed 400 per 100 ml.

The "Initial Dilution"²⁷ Zone" of wastewater outfalls shall be excluded from designation as "Kelp Beds" for purposes of bacterial standards.

Adventitious assemblages of kelp plants on waste discharge structures (e.g. outfall pipes and diffusers) do not constitute Kelp Beds for purposes of bacterial standards.

(b) Shellfish Harvesting Standards²⁸

At all areas where shellfish may be harvested for human consumption (SHELL), the following bacterial objectives shall be maintained throughout the water column:

The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 320 per 100 ml.

2. **Bacterial Characteristics of Inland Surface Waters (fresh)**

(a) Water-Contact and Non-Contact Standards

In waters designated for contact recreation (REC1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 ml, nor shall more than 10 percent of total samples taken during any consecutive 30-day period exceed 400 per 100 ml.

In waters designated for noncontact recreation (REC2), and not designated for contact recreation (REC1), the average fecal coliform concentration for any 30-day period, shall not exceed 2,000 per 100 ml nor, shall more than 10 percent of samples collected during any consecutive 30-day period exceed 4,000 per 100 ml.

(b) Shellfish²⁸

At all areas where shellfish may be harvested for human consumption, the median total coliform concentration for any 30-day period shall not exceed 70 per 100 ml, nor shall more than 10 percent of the samples collected during any consecutive 30-day period exceed 230 per 100 ml for a five-tube decimal dilution test or 330 per 100 ml when a three-tube decimal dilution test is used.

- (c) In bays and estuaries, the most probable number of coliform organisms in the upper 60 feet of the water column shall be less than 1,000 per 100 ml provided that not more than 20 percent of the samples at any sampling station, in any consecutive 30-day period, may exceed 1,000 per 100 ml, and provided further that no single sample, when verified by a repeat sample taken within 48 hours, shall exceed 10,000 per 100 ml. A verification sample will be required within 48 hours.

3. Physical Characteristics

- (a) Floating particulates and grease and oil shall not be visible.
- (b) The discharge of waste shall not cause aesthetically undesirable discoloration of the surface water.
- (c) Natural light shall not be significantly²⁴ reduced at any point outside the zone of initial dilution.
- (d) The rate of deposition of solids and the characteristics of inert solids in receiving water sediments shall not be changed such that benthic communities are degraded²³.
- (e) Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

4. Chemical Characteristics

- (a). The dissolved oxygen concentration of ocean waters shall not at any time be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen demanding waste materials. In bays and lagoons, the annual mean dissolved oxygen concentration shall not be less than 7.0 mg/L, nor shall the minimum dissolved oxygen concentration be reduced below 5.0 mg/L at any time. In inland surface waters, the annual mean dissolved oxygen concentration shall not be less than 5 mg/L more than 10 percent of the time.
- (b). The pH shall not be changed at any time more than 0.2 units from that which occurs naturally in marine or saline waters, nor 0.5 units in inland surface waters designated cold or warm fresh water habitat. In bays and estuaries, the pH shall not be depressed below 7.0 nor raised above 8.5. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.
- (c). The dissolved sulfide concentration of waters in and near sediments and throughout the water column shall not be significantly²⁴ increased above that present under natural conditions.
- (d). The concentration of substances set forth in Chapter IV, Table B, of the Ocean Plan, in marine sediments shall not be increased to levels which would degrade²³ indigenous biota.

- (e). The concentration of organic materials in receiving water sediments shall not be increased to levels which would degrade²³ aquatic life.
- (f). Nutrient materials shall not cause objectionable aquatic growth or degrade²³ indigenous biota.

5. **Biological Characteristics**

- (a) Aquatic communities, including vertebrate, invertebrate, and plant species, shall not be degraded²³.
- (b) The natural taste, odor, and color of fish, shellfish²⁸, or other aquatic resources used for human consumption shall not be altered.
- (c) The concentration of organic materials in fish, shellfish or other aquatic resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

6. **Radioactivity**

Discharges of radioactive waste shall not degrade²³ aquatic life.

7. **Toxic Materials Limitations for Marine Waters (Surf Zone) Ocean Plan, 1997**

OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE

<u>Chemical</u>	<u>Units of Measurement</u>	<u>6-Month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Arsenic	µg/L	8	32	80
Cadmium	µg/L	1	4	10
Chromium (Hexavalent) ¹⁴	µg/L	2	8	20
Copper	µg/L	3	12	30
Lead	µg/L	2	8	20
Mercury	µg/L	0.04	0.16	0.4
Nickel	µg/L	5	20	50
Selenium	µg/L	15	60	150
Silver	µg/L	0.7	2.8	7
Zinc	µg/L	20	80	200
Cyanide	µg/L	1	4	10
Total Chlorine Residual ¹²	µg/L	2	8	60
Ammonia (as nitrogen)	µg/L	600	2400	6000
Chronic Toxicity	TUc		1	
Phenolic Compounds (Non-chlorinated)	µg/L	30	120	300
Chlorinated				
Phenolics	µg/L	1	4	10
Endosulfan	ng/L	9	18	27
Endrin	ng/L	2	4	6

<u>Chemical</u>	Units of <u>Measurement</u>	6-Month <u>Median</u>	Daily <u>Maximum</u>	Instantaneous <u>Maximum</u>
HCH ²⁹	ng/L	4	8	12
Radioactivity	Not to exceed limits specified in Title 17, Chapter 15, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.			

OBJECTIVES FOR PROTECTION OF HUMAN HEALTH -- NONCARCINOGENS

<u>Chemical</u>	Units of <u>Measurement</u>	<u>30-day Averages</u>
Acrolein	µg/L	220
Antimony	mg/L	1.2
bis(2-chloroethoxy) methane	µg/L	4.4
bis(2-chloroisopropyl) ether	mg/L	1.2
Chlorobenzene	µg/L	570
Chromium (III)	mg/L	190
Di-n-butyl phthalate	mg/L	3.5
Dichlorobenzenes ³⁰	mg/L	5.1
1,1-dichloroethylene	mg/L	7.1
Diethyl phthalate	mg/L	33
Dimethyl phthalate	mg/L	820
4,6-dinitro-2-methylphenol	µg/L	220
2,4-dinitrophenol	µg/L	4.0
Ethylbenzene	mg/L	4.1
Fluoranthene	µg/L	15
Hexachlorocyclopentadiene	µg/L	58
Isophorone	mg/L	150
Nitrobenzene	µg/L	4.9
Thallium	µg/L	14
Toluene	mg/L	85
1,1,2,2-tetrachloroethane	mg/L	1.2
Tributyltin	ng/L	1.4
1,1,1-trichloroethane	mg/L	540
1,1,2-trichloroethane	mg/L	43

OBJECTIVES FOR PROTECTION OF HUMAN HEALTH -- CARCINOGENS

<u>Chemical</u>	Units of <u>Measurement</u>	<u>30-day Average</u>
Acrylonitrile	µg/L	0.1
Aldrin	ng/L	0.022
Benzene	µg/L	5.9
Benzidine	ng/L	0.069
Beryllium	ng/L	33
bis(2-chloroethyl) ether	µg/L	0.045
bis(2-ethylhexyl) phthalate	µg/L	3.5
Carbon tetrachloride	µg/L	0.9
Chlordane ³¹	ng/L	0.023
Chloroform	mg/L	0.13
DDT ³²	ng/L	0.17

<u>Chemical</u>	<u>Units of Measurement</u>	<u>30-day Average</u>
1,4-dichlorobenzene	µg/L	18
3,3-dichlorobenzidine	ng/L	8.1
1,2-dichloroethane	mg/L	0.13
Dichloromethane	mg/L	0.45
1,3-dichloropropene	µg/L	8.9
Dieldrin	ng/L	0.04
2,4-dinitrotoluene	µg/L	2.6
1,2-diphenylhydrazine	µg/L	0.16
Halomethanes ³³	mg/L	0.13
Heptachlor ³⁴	ng/L	0.72
Hexachlorobenzene	ng/L	0.21
Hexachlorobutadiene	µg/L	14
Hexachloroethane	µg/L	2.5
N-nitrosodimethylamine	µg/L	7.3
N-nitrosodiphenylamine	µg/L	2.5
PAHs ³⁵	ng/L	8.8
PCBs ¹⁵	ng/L	0.019
TCDD equivalents	pg/L	0.0039
Tetrachloroethylene	µg/L	99
Toxaphene	ng/L	0.21
Trichloroethylene	µg/L	27
2,4,6-trichlorophenol	µg/L	0.29
Vinyl chloride	µg/L	36

8. Toxic Materials Limitations and Objectives for Inland Surface Waters (Fresh)

- (a) Discharges of extracted groundwater shall not cause violations of surface water quality objectives presented by hydrographic subunit and subarea in Table 3-2 of the Comprehensive Water Quality Control Plan Report, San Diego Basin (9), as amended.
- (b) Discharges of extracted groundwater shall not cause violations of the following objectives in inland surface waters:
 1. No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.
 2. For the protection of public health and aquatic species, waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of toxics in excess of the maximum contaminant levels for contaminants set forth in the California Code of Regulations, Title 22, as amended, or water quality objectives listed in 40 CFR 131.38 (Attachment D), for the protection of aquatic species and protection of human health, whichever concentration for a specific chemical is less. Current maximum contaminant levels for the protection of human health from the ingestion of water are as follows:

	<u>Constituent</u>	<u>Title 22 Maximum Contaminant Level (mg/L)</u>
a. Inorganic	Aluminum	1
	Arsenic	0.05
	Barium	1
	Cadmium	0.01
	Chromium	0.05
	Lead	0.05
	Mercury	0.002
	Nitrate	45
	Selenium	0.01
	Silver	0.05
b. Organic	Atrazine	0.003
	Bentazon	0.018
	Benzene	0.001
	Carbon Tetrachloride	0.0005
	2,4-D	0.1
	Dibromochloropropane	0.0002
	1,4-Dichlorobenzene	0.005
	1,2-Dichloroethane	0.0005
	1,1-Dichloroethylene	0.006
	1,3-Dichloropropene	0.0005
	Endrin	0.0002
	Ethyl Benzene	0.68
	Ethylene Dibromide	0.00002
	Lindane	0.004
	Methoxychlor	0.1
	Molinate	0.02
	Monochlorobenzene	0.03
	Simazine	0.01
	1,1,2,2-Tetrachloroethane	0.001
	Tetrachloroethylene	0.005
	Thiobencarb	0.07
	Toxaphene	0.005
	2,4,5-TP Silvex	0.01
	1,1,1-Trichloroethane	0.2
	1,1,2-Trichloroethane	0.032
	Trichloroethylene	0.005
	Vinyl Chloride	0.0005
	Xylenes (Single or sum of isomers)	1.75

9. Mineral Objectives for Inland Surface Waters (fresh):

Hydrographic Unit	Objective (mg/L)			
	<u>TDS</u>	<u>Chloride</u>	<u>Sulfate</u>	<u>Boron</u>
San Juan Unit				
1.10	1000	400	500	0.75
1.20,1.30,1.40,1.50	500	250	250	0.75

Hydrographic Unit	Objective (mg/L)			
	<u>TDS</u>	<u>Chloride</u>	<u>Sulfate</u>	<u>Boron</u>
Santa Margarita Unit				
2.20,2.40,2.50,2.60	500	250	250	0.75
2.70,2.80,2.90,2.10,2.30	750	300	300	0.75
San Luis Rey Unit				
3.10,3.20,3.30	500	250	250	0.75
Carlsbad Unit				
4.10,4.40				
4.20,4.30,4.50,4.60	500	250	250	0.75
San Dieguito Unit				
5.10,5.20,5.30,5.40, 5.50	500	250	250	0.75
Penasquitos Unit				
6.10,6.20,6.40	500	250	250	0.75
6.30,6.50	---	---	---	---
San Diego Unit				
7.10	1000	400	500	1.0
7.11	1500	400	500	1.0
7.12c/d,	1000/1500	400	500	1.0
7.20,7.30,7.40	300	50	65	1.0
Coronado Unit				
10.10	NA	NA	NA	NA
Sweetwater River Unit				
9.10	1500	500	500	0.75
9.20,9.30	500	250	250	0.75
Otay Unit				
10.20	1000	400	500	0.75
10.30	500	250	250	0.75
Tijuana Unit				
11.11	2100	NA	NA	NA
11.20,11.30,11.40,11.50				
11.60,11.70,11.80	500	250	250	1.0

10. Waters designated for use as agricultural supply (AGR) shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.
11. Radioactivity: Discharges of radioactive waste shall not degrade marine life.

D. ELIGIBILITY

1. This Order is applicable to existing and future discharges of extracted groundwater to surface waters resulting from construction, groundwater remediation, and active and passive foundation groundwater extraction projects and activities that are greater than 100,000 gpd, and those less than 100,000 gpd that contain pollutants. Examples of passive foundation groundwater extraction systems are footing drains, slope drains, subterranean drains, french drains, weep holes, or other passive groundwater drainage systems.
2. This Order establishes a general permit for groundwater extraction waste discharges (discharges of groundwater) to all surface waters, other than San Diego Bay under the jurisdiction of this Regional Board. This Order applies to:
 - a. All groundwater extraction waste discharges (discharges of groundwater) of greater than 100,000 gallons per day (GPD); and
 - b. Groundwater extraction waste discharges of less than 100,000 GPD where the extracted groundwater contains pollutants in excess of the limitations contained in Discharge Specification B.1, B.2, B.3, or B.4 of this Order, or which have the potential to cause a pollution, contamination, or nuisance in the receiving water or other waters downstream of the discharge point.
3. Discharges must meet the following criteria to be covered under this Order:
 - (a) Pollutant concentrations in the discharge shall not cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;
 - (b) The discharge shall not cause acute nor chronic toxicity in receiving waters.
4. Dischargers must submit an application for current discharges (not enrolled, but discharging) which meet the eligibility criteria (pursuant to the requirements in Sections F and G, below) to obtain authorization to discharge.
5. When an individual NPDES permit with more specific requirements for groundwater extraction waste discharges is issued to an Enrollee, the applicability of this Order to that Enrollee is automatically terminated on the effective date of the individual permit.

E. DISCHARGE REQUIREMENTS

The applicant shall submit an application to obtain authorization to discharge under this general NPDES permit in accordance with Section F, *Application Requirements*, below. If the discharge is eligible, the Regional Board shall notify the applicant that the discharge is authorized under the terms and conditions of this Order and issue an Enrollment Letter enrolling the applicant under this general permit. For new discharges, the discharge shall not commence until receipt of the Regional Board's Enrollment Letter.

Water main break and service break emergency repairs are to be reported ONLY if groundwater is encountered during the repair. For unforeseeable emergency repair where groundwater is encountered, which could not have been prevented or avoided by the exercise of due care or foresight, the discharger shall notify the Regional Board and submit reports in accordance with the following:

For Each Emergency Repair Where Groundwater is Encountered:

Notify the Regional Board within 24 hrs of each emergency repair on the Emergency Repair Report Form provided by the Regional Board (attached). Notifications may be made via fax at (858) 571-6972 or by e-mail to ghorw@rb9.swrcb.ca.gov, or philj@rb9swrcb.ca.gov. Additional information may be reported by phone at (858) 467-2952. The report form shall be filled out completely and indicate if the discharge posed a threat to the environment or human health.

Quarterly Summary Reporting of Emergency Repairs Where Groundwater is Encountered:

Submit quarterly summary reports to the Regional Board for the periods of January-March, April-June, July-September, and October-December; the reports shall be submitted by the 30th of the month following the report period (April 30, July 30, Oct 30 and Jan 30, respectively). Quarterly Summary Reports shall contain all emergency repairs that occurred during the reporting period. For each individual emergency repair the report shall contain information in accordance with Emergency Repair Report Form. The quarterly summary shall include map(s) clearly marking the locations of all emergency repairs that occurred during the report period. Each quarterly report shall include analytical results from the groundwater samples taken during emergency repairs. No more than four sampling events per quarter are required.

Samples collected shall be analyzed for the following constituents:

- Total Suspended Solids
- Settleable Solids
- Turbidity
- pH
- BTEX
- TPH
- MTBE
- Heavy Metals

After 1 year, the data will be reviewed by the Regional Board to determine if Order No. 2001-96 requires amendment in order to more appropriately regulate emergency repairs.

Emergency repair discharges are not subject to application or annual fees.

F. APPLICATION REQUIREMENTS

1. Deadline for Submission

New applicants shall file a complete application at least 60 days before the planned commencement of the discharge.

2. Forms for Report of Waste Discharge
 - a. Applicants shall use forms supplied by the Regional Board (attached).
 - b. The applicant, upon request, shall submit any additional information that the Regional Board deems necessary to determine whether the discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.
 - c. The application shall be accompanied by the first annual fee of \$1,000.00. The check or money order shall be made payable to the "State Water Resources Control Board."

In order to obtain authorization to discharge under the terms and conditions of this Order, the applicant shall submit an application on forms provided by the Regional Board and in accordance with directions specified by the Regional Board. **The application must include the following information and materials:**

1. **Project type: remediation, construction, foundation, temporary, or permanent.**
2. **Project address/location. Include a map illustrating the project location, discharge points, receiving waters, and Hydrologic Subarea numbers.**
3. **Number of groundwater extraction sites, or wells. Depth to groundwater in each well. Distances between the wells or sites. (If this is an alignment project (i.e.: pipeline) set sample points no further than 1000 feet apart.**
4. **Estimated maximum discharge flowrate(s) (GPD).**
5. **Estimated duration of discharge event(s). Indicate whether the discharge(s) will be one time, short term intermittent (less than 60 days), long term intermittent (greater than 60 days), permanent continuous, or permanent intermittent.**
6. **Proposed location(s) of discharge event(s) points, and name of receiving water(s). State whether the discharge(s) will be via a storm drain system, or directly into the receiving water. If the discharge is directly into the receiving water, state if it will be submerged or on the surface. List & illustrate all discharge points. If the receiving water is an inland surface water (fresh water) that is tributary to a saline water body, state the distance from the discharge point to the saline water, and whether there is any tidal influence (measurable salinity) at the point of discharge.**
7. **Location and description of storm drain(s) or conveyance system(s) used to convey the discharge to surface waters.**
8. **Name of public agency or entity having jurisdiction of storm drain(s) or conveyance**

system(s) used to discharge to surface waters within the San Diego Region. Proof of notification to the public agency or entity responsible for the storm drain(s) or conveyance system(s) used to convey the proposed discharge to surface waters.

- 9. Proposed groundwater extraction start date for each extraction site.**
- 10. Radius of influence (also known as the “cone of influence”) assessment. An estimate or calculation of the radius of drawdown from the groundwater extraction pumping point.**
- 11. Description of all known contamination within the radius of influence.**
- 12. Detailed historical land use report.**
- 13. Site Assessment (if a site assessment has been done).**
- 14. Proximity of discharge location to Areas of Special Biological Significance (ASBS). ASBS’s are Heisler Park Ecological Reserve located in coastal waters near the City of Laguna Beach; the San Diego-La Jolla Ecological Reserve; and the San Diego Marine Life Refuge, located in coastal waters near La Jolla, a community of the City of San Diego.**
- 15. Proposed treatment processes, including chemicals to be used for biofouling control.**
- 16. Best Management Practices (BMP’s) and contingency plan (for leaks, spills, and process treatment system failures).**
- 17. Statement of the potential uses of the extracted groundwater and compliance with Article X, Section 2, of the California Constitution. An example of a potential use is dust control. The application shall include a feasibility study on reuse and/or alternative disposal methods of the water. Examples of alternative methods of disposal are reinjection, percolation into the ground, use for dust control, or irrigation.**
- 18. Statement of the potential for disposal to alternative receiving waters. Examples of alternative methods of disposal are reinjection and percolation into the ground.**
- 19. Statement of compliance with 40 CFR 131.12 and SWRCB Resolution No. 68-16 (collectively Antidegradation Policies).**
- 20. Results of analyses of the groundwater to be extracted for all of the constituents listed in Discharge Specification B.1, B.2, B.3, or B.4 (depending upon the receiving water) of this Order, as well as all 126 CTR constituents (Attachment D).**
- 21. Signed Certification of Compliance statement on responsible party (owners) letterhead. This is to be signed and submitted by the project owner. Certifications by consultants and contractors are not valid and will not be accepted.**

- 22. The application shall be accompanied by the first annual fee of \$1000.00. The check or money order shall be made payable to the "State Water Resources Control Board."**

G. PROVISIONS

1. Neither the treatment nor the discharge of wastes shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.
2. The Enrollee must comply with all conditions of this Order and the Enrollment Letter from the Regional Board. Any permit noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action or for Enrollment Letter termination or modification.
3. The Enrollee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order or the Enrollment Letter, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.
4. This Order, and the Enrollment Letter, may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this Order or the Enrollment Letter;
 - b. Obtaining coverage under this Order or the Enrollment Letter, by misrepresentation or failure to disclose fully all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
 - d. A finding that monitoring "indicator" pollutants listed in this Order do not ensure compliance with water quality criteria or objectives for the pollutants expected to be represented by the "indicator" pollutants.
 - e. On the basis of any data, the Regional Board determines that continued discharges may cause unreasonable degradation of the aquatic environment.
5. The filing of a request by the Enrollee for modification, revocation and re-issuance, or termination of this Order or the associated Enrollment Letter, or a notification of planned change in or anticipated noncompliance with this Order or Enrollment Letter, does not stay any condition of this Order or the Enrollment Letter.
6. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Board may initiate proceedings under these regulations to modify or revoke and reissue this Order to conform to the toxic effluent standard or prohibition.

7. The Regional Board, or the Director of the U.S. EPA, may require any person requesting authorization to discharge under this general permit or authorized to discharge under this general permit to apply for and obtain an individual NPDES permit. Cases where an individual NPDES permit may be required include, but are not limited to, those described in 40 CFR 122.28 (b)(3)(i) for U.S. EPA issued permits only.
8. An authorized discharge, either separately or jointly with any other discharge, shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act or amendments thereto, the Regional Board will revise and modify this Order in accordance with the more stringent standards.
9. The Enrollee shall comply with effluent standards or prohibitions established under Section 307(a) of the Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.
10. This Order, and the Enrollment Letter, is not transferable to any person except after notice to the Regional Board. The Regional Board requires the Enrollee to submit a transfer of ownership/responsibility in writing prior to the transmittal of a new Enrollment Letter to change the name of the Enrollee and incorporate such other requirements as may be necessary under the California Water Code and the Clean Water Act. The Enrollee shall submit notice of any transfer of this Order's responsibility and coverage to a new Enrollee as described under Reporting Requirement H.3.
11. This Order, and the Enrollment Letter, does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property of another, including property damage caused as a result of the migration of groundwater contaminant plumes, nor protect the Enrollee from liabilities under federal, state, or local laws, nor create a vested right for the Enrollee to continue its waste discharge.
12. The Enrollee shall allow the Regional Board, or an authorized representative, or any representative of the USEPA, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this Order; and

- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act or California Water Code, any substances or parameters at any location.
13. The Enrollee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Enrollee to achieve compliance with the conditions of this Order or the Enrollment Letter. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order or the Enrollment Letter.
 14. Bypass of Treatment Facilities
 - a. Definitions
 - (1) "Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - b. Bypass Not Exceeding Effluent Limitations

The Enrollee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operations. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
 - c. Notice of Anticipated Bypass and Unanticipated Bypass
 - (1) Anticipated bypass. If the Enrollee knows in advance of the need for a bypass they shall submit prior notice, if possible, at least ten days before the date of the bypass.
 - (2) Unanticipated bypass. The Enrollee shall submit notice of an unanticipated bypass as described under Reporting Requirement H.5.
 - d. Prohibition of Bypass
 - (1) Bypass is prohibited and the Regional Board may take enforcement action against the Enrollee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or

severe property damage;

- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Enrollee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment down time or preventative maintenance; and
- (c) The Enrollee submitted notices as required under paragraph c of this Section.

- (2) The Regional Board may approve an anticipated bypass after considering its adverse effect, if the Regional Board determines that it will meet the three conditions listed above in sections D.1a, D.1b, and D.1c of this section.

15. Upset Condition

a. Definitions

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the Enrollee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph c of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions Necessary for a Demonstration of Upset

An Enrollee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the Enrollee can identify the specific cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated; and
- (3) The Enrollee submitted notice of the upset as required in Reporting Requirement H.5.

d. Burden of Proof

In any enforcement proceeding the Enrollee seeking to establish the occurrence of an upset has the burden of proof.

16. It shall not be a defense for the Enrollee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order or the Enrollment Letter. Upon reduction, loss, or failure of the treatment facility, the Enrollee shall, to the extent necessary to maintain compliance with this Order or the Enrollment Letter, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.
17. It shall not be a defense for the Enrollee in an enforcement action that effluent limitation violations are a result of analytical variability rendering the results inaccurate. The validity of the testing results, whether or not the Enrollee has monitored or sampled more frequently than required by this Order, shall not be a defense to an enforcement action.
18. A copy of this Order and the Enrollment Letter shall be posted at a prominent location at the Enrollee's facility, and shall be available to operating personnel at all times.
19. The provisions of this Order and the Enrollment Letter are severable. If any provision of this Order and Enrollment Letter, or the application of any provision of this Order and Enrollment Letter to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order and Enrollment Letter, shall not be affected thereby.
20. The Enrollee shall take all reasonable steps to minimize or prevent any discharge in violation of this Order which has a reasonable likelihood of adversely affecting human health or the environment.
21. The Enrollee will be required to comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements, which have been or may be adopted by this Regional Board.
22. The 6-month median effluent concentration limit shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.
23. The 30-day average shall be the arithmetic mean, using the results of analyses of all samples collected during any 30 consecutive day period.
24. The daily maximum effluent concentration limitation shall apply to flow weighted 24-hour composite samples, or grab samples if the duration of the discharge is less than 24 hours.
25. The instantaneous maximum effluent concentration limit shall apply to grab sample

determinations.

26. If only one sample is collected during the time period associated with the effluent limitations (e.g., 30-day average or 6-month median), the single measurement shall be used to determine compliance with the average or median effluent limitation for the entire time period.
27. All analytical data shall be reported uncensored with detection limits and quantitation limits identified. For any effluent limitation, compliance shall be determined using appropriate statistical methods to evaluate multiple samples. Sufficient sampling and analysis shall be conducted to determine compliance.
28. Pursuant to 40 CFR 131.38, the discharger shall report with each sample results subject to the CTR Requirements:
 - a. The applicable *Minimum Level (ML) in accordance with section 2.4.2, or established in accordance with section 2.4.3 of 40 CFR 131.38; this ML is the “reported ML”; and
 - b. The laboratory’s current *Method Detection Limit (MDL), as determined by the procedure found in 40 CFR 136.
29. Pursuant to 40 CFR 131.38, the discharger shall report the results of analytical determinations for the presence of chemical constituents in a samples subject to CTR requirements using the following reporting protocols:
 - a. Sample results greater than or equal to the reported Minimum Level (ML) shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
 - b. Sample results less than the reported ML, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The *estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words, “Estimated Concentration” (may be shortened to (“Est. Conc.”)). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
 - c. Sample results less than the laboratory’s MDL shall be reported as “Not Detected,” or ND.
30. Compliance based on a single sample analysis should be determined where appropriate as described below for samples not subject to CTR requirements.
 - a. When a calculated effluent limitation is greater than or equal to the PQL (defined below), compliance shall be determined based on the calculated effluent limitation

- and either single or multiple sample analyses.
- b. When the calculated effluent limitation is below the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.
 - c. When the calculated effluent limitation is below the PQL and recurrent analytical responses between the PQL and the calculated limit occur, compliance shall be determined by statistical analysis of multiple samples.
31. Published values for MDLs (defined below) and PQLs should be used for samples not subject to CTR requirements, except where revised MDLs and PQLs are available from recent laboratory performance evaluations, in which case the revised MDLs and PQLs should be used. Where published values are not available, the Regional Board will determine appropriate values based on available information, including information submitted by the Enrollee upon request of the Regional Board.
- a. The Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 CFR Part 136, Attachment B.
 - b. The PQL is the lowest concentration of a substance which can be consistently determined within +/-20% of the true concentration by 75% of the labs tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL for carcinogens is the MDL x 5, and for non-carcinogens is the MDL x 10.
32. When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCBs), concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the MDL for that parameter.
33. The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

$$\text{mass emission rate (lb/day)} = 8.34 \times Q \times C$$

in which Q is the flow rate in MGD and C is the constituent concentration in mg/L, and 8.34 is a conversion factor. If a composite sample is taken, then C is the constituent concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited. Mass loading effluent limitations for a specific pollutant may be calculated using the authorized flowrate (in MGD) as the flow rate "Q" and the pollutant concentration limitation contained in Discharge Specification No. B.1, B.2, B.3, or B.4 as the constituent concentration "C" in the above equation.

34. Compliance with the Acute Toxicity limitation in Section B.1, B.2, B.3, or B.4, *Discharge Specifications*, of this Order shall be determined using an established protocol, e.g., American Society for Testing Materials (ASTM), USEPA, American Public Health Association, or SWRCB.

Acute Toxicity (TUa) shall be expressed in Toxic Units Acute (TUa), where:

$$TUa = \frac{\log(100 - S)}{1.7}$$

where S is the percentage survival in 100% waste. If $S > 99$, TUa shall be reported as zero.

Acceptable test species for fresh water samples are: Vertebrate (Fish) = fathead minnow.

35. Compliance with the Chronic Toxicity effluent limitation established in Discharge Specification No. B.1, B.2, B.3, or B.4, of this Order, shall be determined using critical life stage toxicity tests. Chronic Toxicity (TUc) shall be expressed as Toxic Units Chronic (TUc), where:

$$TUc = 100/NOEL$$

where NOEL is the No Observed Effect Level and is expressed as the maximum percent of effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed below.

A minimum of three test species with approved test protocols shall be used to measure compliance with the chronic toxicity objective. The test species shall include a fish, an invertebrate, and an aquatic plant.

Acceptable test species for fresh water samples are: Vertebrate (Fish) = fathead minnow; Invertebrate = water flea; Plant = algae.

The following tests shall be used to measure TUc for salt-water samples:

<u>Species</u>	<u>Effect</u>	<u>Tier</u>	<u>Reference</u>
Giant kelp, <i>Macrocystis</i> Pyrifera	percent germination; germ tube length	1	Ocean Plan, pg. 24
Red abalone, <i>Haliotis</i> <i>Plan, rufescens</i>	abnormal shell development	1	Ocean pg. 24
Oyster, <i>Crassostrea gigas</i> ; mussels, <i>Mytilus</i> spp.	abnormal shell development; percent survival	1	Ocean Plan, pg. 24
Urchin, <i>Strongylocentrotus</i> <i>purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	percent normal development	1	Ocean Plan, pg. 24

<u>Species</u>	<u>Effect</u>	<u>Tier</u>	<u>Reference</u>
Urchin, Strongylocentrotus Purpuratus; sand dollar, Dendraster excentricus	percent fertilization	1	Ocean Plan, pg. 24
Shrimp, Holmesimysis costata	percent survival; growth	1	Ocean Plan, pg. 24
Shrimp, Mysidopsis bahia	percent survival; growth; fecundity	2	Ocean Plan, pg. 24
Topsmelt, Atherinops affinis	larval growth rate; percent survival	1	Ocean Plan, pg. 24
Silversides, Menidia beryllina	larval growth rate; percent survival	2	Ocean Plan, pg. 24

Note: The first tier test methods are the preferred toxicity tests for compliance monitoring. A Regional Board can approve the use of a second tier test method for waste discharges if first tier organisms are not available.

After a screening period, to be determined on a case by case basis by the Regional Board, monitoring may be reduced to the most sensitive species. Dilution and control water should be obtained from an unaffected area of the receiving waters. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

36. No later than six months after authorization to discharge under this Order, all permanent groundwater extraction waste discharge Enrollees shall develop a Toxicity Reduction Evaluation (TRE) workplan in accordance with USEPA's Toxicity Reduction Evaluation Procedures: Phases 1, 2, and 3, (USEPA document Nos. USEPA 600/3-88/034, 600/3-88/035 and 600/3-88/036, respectively), and TRE Protocol for Municipal Wastewater Treatment Plants (USEPA 600/2-88/062). The TRE workplan shall be subject to the approval of the Regional Board and shall be modified as directed by the Regional Board. All Enrollees shall submit the TRE workplan to the Regional Board upon completion. Submittal of the TRE workplan on a IBM formatted double sided high density 3.5" floppy disk in Word 7.0 format is acceptable.

If toxicity testing results show a violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1, B.2, B.3, or B.4 of this Order, the Enrollee shall:

- a. Take all reasonable measures necessary to immediately minimize toxicity; and
- b. Increase the frequency of the toxicity test(s) which showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.

If the Regional Board determines that toxicity testing shows consistent violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1, B.2, B.3, or B.4 of this

Order, the Enrollee shall conduct a TRE which includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the Enrollee shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in Discharge Specification B.1, B.2, B.3, or B.4 of this Order.

Within fourteen days of completion of the TRE, the Enrollee shall submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with all the toxicity limitations of this Order and prevent recurrence of violations of those limitations, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Executive Officer.

37. For all bacterial analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000 MPN (most probable number). The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in the most recent edition of Standard Methods for the Examination of Water and Wastewater or any improved method determined by the Regional Board (and approved by USEPA) to be appropriate. Detection methods used for enterococcus shall be those presented in USEPA publication USEPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Regional Board to be appropriate.
38. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \dots \times C_n)^{1/n}$$

Where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL) found on each day of sampling.

39. As used in this Order, waste includes an Enrollee's total discharge of whatever origin (i.e. gross, not net) discharge.
40. Reduction of natural light may be determined by the Regional Board by measurement of light transmissivity, total irradiance, or both, according to the monitoring needs of the Regional Board.

H. REPORTING REQUIREMENTS

1. The Enrollee shall file a new application not less than 180 days prior to the following:
 - a. Addition of any industrial waste to the discharge or the addition of a new process or product resulting in a change in the character of the wastes.
 - b. Significant change in disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).

- c. Significant change in disposal area (e.g., moving the discharge to a disposal area significantly removed from the original area, potentially causing different water quality or nuisance problems).
 - d. Increase in flow beyond that specified in the Enrollee's Enrollment Letter.
 - e. Other circumstances which result in a material change in character, amount, or location of the waste discharge.
 - f. Any planned physical alterations or additions to the permitted discharge and/or facility.
2. The Enrollee shall give advance notice to the Regional Board of any planned changes in the permitted discharge and/or facility or activity which may result in noncompliance with the requirements of this Order or the Enrollment Letter.
3. The Enrollee must notify the Regional Board, in writing, at least 30 days in advance of any proposed transfer of authorization and responsibility for compliance with this order to a new Enrollee. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of authorization responsibility and coverage between the current Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date on.
4. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2001-96 and any additional monitoring requirements specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2001-96. The sampling and analysis schedule in the attached monitoring program must be followed, as well as any additional or augmented monitoring requirements specified in the Enrollment Letter. If requested by the Enrollee, the monitoring program may be modified or reduced by the Regional Board after review of results from not less than four sampling events with a sampling frequency of not less than monthly. If the groundwater extraction and/or treatment system(s) described in the application is modified, the schedule of applicable monitoring specified in Monitoring and Reporting Program No. 2001-96, or the Enrollment Letter, will be reviewed for possible modification.
5. The Enrollee shall report any noncompliance, which may endanger health or the environment. Any information shall be provided orally to the Regional Board within 24 hours from the time the Enrollee becomes aware of the circumstances. The Enrollee shall submit a written report containing a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The written report shall be included with the monitoring report for the period in which the noncompliance occurred, or earlier if requested by the Regional Board. The following occurrence(s) must be reported to the Regional Board within 24 hours:
 - a. Any upset which causes the effluent limitations of this Order to be exceeded;

- b. Any unanticipated bypass which causes the effluent limits of this Order to be exceeded;
 - c. Violation of a daily maximum effluent limitation, or instantaneous maximum effluent limitation, if a grab sample is obtained, as specified in this Order excluding violations of settleable solids, total suspended solids, turbidity, phosphorus, and nitrogen (provided that nitrate-nitrogen does not exceed 10 mg/L); and
 - d. Any violation of the prohibitions of this Order or an Enrollment Letter.
6. Enrollees applying for enrollment under this Order shall notify the Agency/Municipality that owns, operates, and maintains the storm water conveyance system that the Enrollee proposes to use the storm water conveyance system as a discharge conveyance system to a surface water.
7. The Enrollee shall notify the Regional Board as soon as it is known or there is reason to believe:
- a. That any activity has occurred or will occur which will result in the discharge of any toxic pollutant which is not limited in this Order, if that discharge will exceed the highest of the following "notification levels":
 - 1. One hundred micrograms per liter (100 µg/L);
 - 2. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
8. The Enrollee shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or the Enrollment Letter, or to determine compliance with this Order or other requirements established by the Regional Board. The Enrollee shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order or the Enrollment Letter.
9. The Enrollee shall provide adequate notice to the Regional Board of the following:
- a. Any new introduction of pollutants to the discharge (i.e.: chlorine).
 - b. Any substantial change in the volume or character of pollutants being introduced into the discharge.
 - c. For the purpose of this provision, adequate notice shall include information on:
 - (1) The quality and quantity of pollutants introduced into the discharge, and
 - (2) Any anticipated impact of the change on the quantity or quality of effluent to be discharged to the receiving water.

10. Where the Enrollee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application, or in any report to the Regional Board, it shall promptly submit such facts or information.
11. If a need for a discharge bypass is known in advance, the Enrollee shall submit prior notice and, if at all possible, such notice shall be submitted at least ten days prior to the date of the bypass.
12. This Order expires on September 14, 2006. However, it will continue in force and effect until a new general permit is issued or the Regional Board rescinds this general permit.
13. All applications, reports, or information submitted to the Regional Board shall be signed and certified.
 - a. The application and certification report shall be signed as follows:
 1. For a corporation - by a principal executive officer of at least the level of vice-president.
 2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
 3. For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official.
 - b. All other reports required by this Order and other information requested by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
 1. The authorization is made in writing by a person described in paragraph (a) of this provision;
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility (a duly authorized representative may be either a named individual or any individual occupying a named position); and
 3. The written authorization is submitted to the Regional Board.
 - c. Any person signing a document under this Section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information

submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

14. Except for data determined to be confidential under Title 40, Code of Federal Regulations Part 2 (40 CFR Part 2), all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region and the USEPA, Region 9. As required by the Clean Water Act, applications, this Order, and effluent data shall not be considered confidential.
15. Where a Categorical Exception pursuant to Section 5.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy) is requested, the discharger shall notify potentially affected public and governmental agencies. Also, the discharger shall submit to the Regional Board, for approval:
 - a. A detailed description of the proposed action, including the proposed method of completing the action;
 - b. A time schedule;
 - c. A discharge and receiving water quality monitoring plan (before project initiation, during the project, and after project completion, with the appropriate quality assurance and quality control procedures);
 - d. California Environmental Quality Action (CEQA) documentation;
 - e. Contingency plans;
 - f. Identification of alternate water supply (if needed);
 - g. Residual waste disposal plans; and
 - h. Upon completion of the project, the discharger shall provide certification by a qualified biologist that the receiving water beneficial uses have been restored.
16. The Enrollee shall submit written notification of the termination of the discharge to the Regional Board within 30 days of the termination of the discharge.
17. The Enrollee shall submit applications and reports required under this Order to:

Industrial Compliance Unit
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd, Suite A
San Diego, California 92124-1324

I. NOTIFICATIONS

1. California Water Code Section 13263(g) states:

"No discharge of waste into the waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the state are privileges, not rights."

2. The Clean Water Act provides that any person who violates a condition of this Order implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$10,000 per day of such violations. Any person who willfully or negligently violates conditions of this Order implementing Section 301, 302, 306, 307 or 308 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both.
3. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
4. Nothing in this Order shall be construed to relieve the Enrollee from civil or criminal penalties for noncompliance.
5. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Enrollee from any responsibilities, liabilities, or penalties to which the Enrollee is or may be subject to under Section 311 of the Clean Water Act.
6. Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Enrollee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.
7. This Order shall become effective 10 days after the date of its adoption, provided the Regional Administrator or Director, USEPA, has no objection. If the Regional Administrator or Director objects to its issuance, this Order shall not become effective until such objection is withdrawn.
8. If the *Water Quality Control Policy for Enclosed Bays and Estuaries of California* (May 16, 1974) is revised, this Order may be modified to incorporate such revisions. If a Water Quality Control Plan for Enclosed Bays and Estuaries of California is adopted, this Order may be modified to implement such a plan.
9. This Order supersedes Order No. 96-41, and Order No. 96-41 is rescinded when this Order takes effect.

10. Once enrolled under this Order, the Enrollee shall be subject to an annual fee of \$1000.00. The check or money order shall be submitted with the application, and made payable to the "State Water Resources Control Board."

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Control Board, San Diego Region, on September 14, 2001.

TENTATIVE

JOHN H. ROBERTUS
EXECUTIVE OFFICER

ENDNOTE REFERENCES

1. "Enclosed bays" include all bays where the narrowest distance between headlands or outer most harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay.
2. BAT = "Best available technology economically achievable" refers to the best treatment technologies available which have been determined to be cost effective, reliable, and efficient by the USEPA, SWRCB, or the Regional Water Quality Control Board.
3. 40 CFR 122.4(d)(1)(vii) requires that if indicator monitoring parameters are used, the following four provisions must be fulfilled:
 - a) The permit identifies which pollutants are intended to be controlled by use of the indicator effluent limitations,
 - b) The fact sheet sets forth the basis for each indicator chemical's effluent concentration limitation and includes a finding that compliance with the limit on the indicator constituent will result in controls on the pollutant(s) of concern which are sufficient to attain and maintain water quality standards,
 - c) Effluent and receiving water quality monitoring to show the limit on the indicator parameter attains and maintains applicable water quality standards, and
 - d) The permit contains a re-opener clause.
 - e) Each of the preceding conditions for inclusion of indicator parameter monitoring has been addressed in this Order, the attached Monitoring and Reporting Program, the Enrollment Letter from the Regional Board, or the Fact Sheet for this Order.
4. Leaking Underground Storage Tank Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, State of California, Leaking Underground Fuel Tank Task Force, May 1988.
5. Diesel fuel consists primarily of straight-chain hydrocarbons (alkenes and alkanes) ranging in length from C10 to C23 with C16 and C17 predominating. The C10-C30 straight-chain hydrocarbons can be quantified in groundwater using standard analytical techniques (e.g. California Department of Health Services recommended analytical procedure for total petroleum hydrocarbons - diesel, (LUFT Manual: Guidelines for site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989 base/neutral organic analytical techniques contained in 40CFR 136). Since the predominant components of diesel fuel are the straight-chain hydrocarbons, the total petroleum hydrocarbon - diesel standard testing method contained in the LUFT Manual is used as the indicator of diesel fuel-contaminated groundwaters. Groundwater gasoline remediation projects may use standard TPH methods.

The "indicator" compounds to detect common industrial solvents are the volatile organic compounds listed in 40 CFR 136.
6. NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), USEPA, Water Management Division, July 1986.
7. After receipt of an application report as required by Section F, *Application Requirements* of Tentative Order No. 2001-96, the Regional Board may:
 - a) Determine that the proposed discharge is subject to regulation by Tentative Order No. 2001-96,
 - b) Determine that the proposed discharge is not subject to regulation by Tentative Order No. 2001-96, or

- c) Request additional information in order to determine if the discharge is subject to regulation by Tentative Order No. 2001-96.

If the Regional Board determines that the proposed discharge is subject to regulation by Tentative Order No. 2001-96, an "Enrollment Letter" will be issued to the Enrollee authorizing the discharge, subject to the terms and conditions of Tentative Order No. 2001-96 and any other conditions necessary to protect the beneficial uses of surface waters within the San Diego Region. The Enrollment Letter will also specify the maximum allowed discharge flowrate (which also limits the mass loading rate for each pollutant listed in Discharge Specification Nos. B.1, B.2, B.3, and B.4 of Tentative Order No. 2001-96) and any additional monitoring and reporting requirements not covered by Monitoring and Reporting Program No. 2001-96. Enrollment Letters issued by the Regional Board for discharges from groundwater remediation operations shall specify effluent limits and monitoring requirements for the constituents necessitating remediation. If the Regional Board does not issue an Enrollment letter for a discharge under the terms and conditions of Tentative Order No. 2001-96, the discharge of groundwater extraction waste to surface waters within the San Diego Region other than San Diego Bay is prohibited.

- 8. The effluent limitations for Ocean Plan Table B constituents for groundwater extraction waste discharges to bays and estuaries were determined by using an initial dilution factor of zero and applying the calculations and procedures found in the Water Quality Control Plan, Ocean Waters of California, 1997 (Ocean Plan). Except for volatile and base/neutral extractable compounds, in which case concentrations achievable using best available technology economically achievable (BAT) were taken into consideration, where lower than Table B-based effluent limitations can be achieved using BAT, BAT is the basis for the lower effluent limit.

The effluent limitations for Ocean Plan Table B constituents for groundwater extraction waste discharges to the surf zone were determined by using an initial dilution factor of three and applying the volatile and base/neutral compounds in the case that BAT is able to reduce the constituent to a lower concentration. The use of dilution factor of three for discharges to surf zones is based on a preliminary dilution model submitted by Professor Gerhard H. Jirka, School of Civil and Environmental Engineering, Cornell University, for a dewatering project for the international treatment facility ocean outfall near Tijuana. This particular model assumes that:

- a) Mixing of the dewatering is primarily controlled by wave-induced turbulence and longshore conditions,
- b) 0.55 meter wave height with a 15 second period occurring with a 95 percent exceedance probability,
- c) A longshore velocity of 5 to 10 centimeters per second, and
- d) A near-shore slope of 3 percent.

The model results in an initial dilution ratio of 6. Since the model does not represent topographic and wave conditions throughout the Region, the initial dilution factor for discharges to surf zones was halved.

The effluent limitations for volatile and base/neutral organics not limited by standard criteria or objectives (e.g., Ocean Plan, USEPA criteria, etc.) are based on best professional judgement of the best available technology economically achievable (BAT) for the removal of volatile and semivolatile organic compounds from groundwater (reference is made to NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), USEPA, Water Management Division, July 1986) and the practical quantitation level (PQL) for each compound. Effluent limitations for settleable solids, total suspended solids, nitrogen, phosphorus, turbidity, dissolved oxygen, and acute toxicity are based on best professional judgement.

Effluent limitations for toxic pollutants which may be present in groundwater extraction waste discharges to inland surface waters designated municipal or potable supply are based on:

- a) the USEPA criteria for the protection of aquatic species,

- b) the California Department of Health Service's Maximum Contaminant Level (MCL) for potable water, or
- c) Achievable effluent concentrations using best available technology (BAT).

Effluent limitations for discharges to inland surface waters which have not been designated as having a beneficial use of municipal or potable supply are based on the following:

- a) The USEPA criteria for the protection of aquatic species,
- b) The USEPA criteria for the protection of human health from consumption of aquatic species, or
- c) Achievable effluent concentrations using best available technology (BAT).

Effluent limitations for the protection of human health from the ingestion of carcinogens are based on the EPA criteria which may result in an incremental cancer risk over the lifetime of 10^{-6} .

Where effluent concentration limitations in this Order are less than Methods Detection Limits (MDL) contained in 40 CFR 136, or other analytical detection levels approved by the Regional Board, compliance with effluent limitations will be assumed if the effluent concentration is less than the MDL or PQLs contained in the approved analytical methods unless more definitive (sensitive) analytical methods are requested by the Regional Board. If sample matrix interferences, or other interferences result in analytical detection levels less sensitive than those listed in 40 CFR 136, or other methods approved by the Regional Board, such interferences shall be documented by the laboratory performing the analyses.

- 9. The "Basis" for each numerical effluent pollutant concentration limit necessary to protect the beneficial uses of receiving waters was derived or obtained from the source indicated in Discharge Specifications B.1 through B.4. Abbreviations listed in the table are explained in footnote reference Nos. 10, 11, 13, 19, 21, and 22 below.
- 10. "BPJ" = Best Professional Judgement. The application of best professional judgement in establishing effluent limitations is authorized by 40 CFR 125.3. The establishment of BPJ effluent limitations is based on the following:
 - a) review of effluent limitations for similar operations which discharge wastes to enclosed bays or other receiving waters in the State of California,
 - b) Compliance with general narrative water quality objectives as required in the Comprehensive Water Quality Control Plan, San Diego Basin (9) (Basin Plan),
 - c) Review of technical support documents, *Quality Criteria for Water*, United States Environmental Protection Agency, if available, for suggested criteria for the protection of aquatic life,
 - d) Water Quality Control Plan, Ocean Waters of California, 1997, and
 - e) Water Quality Control Policy for Enclosed Bays and Estuaries of California (May 16, 1974).
- 11. "OP" = Ocean Plan. Effluent limitations for Ocean Plan, Table B constituents are derived using a dilution factor of 'zero' for discharges to bays and estuaries, lagoons and harbors, inland surface waters and 'three' for discharges to the surf zone, and applying the calculations and procedures found in the Ocean Plan (Water Quality Control Plan, Ocean Waters of California, 1997). The effluent limitations for volatile organics (e.g., benzene, ethylbenzene, toluene, and xylene, etc.) are based on best professional judgement of the best available technology economically achievable (BAT) for the removal of volatile organic compounds from water (reference is made to NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), U.S. Environmental Protection Agency, Water Management Division, July 1986) and the practical quantitation level for each compound. Effluent limitations for

settleable solids, total suspended solids, toxicity, hydrogen sulfide, and total petroleum hydrocarbons are based on best professional judgement.

12. Total Residual Chlorine: In samples obtained from marine, saline, or other waters containing bromine, total residual chlorine limitations shall apply to total residual oxidants (TRO). The effluent and receiving water quality limitations for chlorine are based on a continuous discharge. Effluent and receiving water quality limitations for total chlorine residual applying to intermittent chlorine discharges not exceeding two hours, shall be determined through the use of the following equation:

$$\log y = -0.33(\log x) + 2.1$$

where y = the effluent and receiving water quality limitation
(in µg/L) to apply when chlorine is being discharged;
x = the duration of uninterrupted chlorine discharge in
minutes.

13. "BPJ/BAT" = The best professional judgement of the best available technology economically achievable. The effluent limitations for volatile and semivolatile organic compounds are based on BPJ/BAT for the removal of organic constituents as authorized by Section 301(b)(2) of the Clean Water Act. The establishment of the BPJ/BAT effluent imitations is based on:
- a) Economically achievable pollutant removal efficiencies of available treatment technologies,
 - b) Method detection limits (MDL) or practical quantitation levels (PQL) established for organic contaminants in waters,
 - c) The draft document *NPDES Permit Limitations For Discharge Of Contaminated Groundwater: Guidance Document For Volatile Petroleum Hydrocarbons*, prepared by Harold A. Ball and Kenneth H. Sutherland, USEPA, Water Management Division, July 1986,
 - d) *Leaking Underground Storage Tank Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure*, State of California, Leaking Underground Fuel Tank Task Force, May 1988,
 - e) *Final NPDES General Permit for Petroleum Fuel Contaminated Ground/Storm Water in the State of Florida*, Federal Register, July 17, 1989, and,
 - f) *Model NPDES Permit for Discharges Resulting From the Cleanup of Gasoline Released From Underground Storage Tanks*, USEPA, June 1989.
14. The hexavalent and trivalent chromium limits may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for hexavalent chromium and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.
15. PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Arochlor-1016, Arochlor-1221, Arochlor-1232, Arochlor-1242, Arochlor-1248, Arochlor-1254, and Arochlor-1260.
16. "Base/Neutral organic compounds" are listed in 40 CFR 136. The instantaneous maximum effluent limitation of 10 µg/L for base/neutral compounds does not apply to pesticides.
17. Discharges to lagoons and estuaries consisting of freshwater shall comply with the effluent limitations for discharges to inland surface waters. Where questions arise concerning the salinity, or lack thereof, of a receiving water, the Regional Board shall determine which effluent limitation are applicable.

18. Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total phosphorus concentrations shall not exceed 0.05 mg/L in any stream at the point where it enters any standing body of water, nor 0.025 mg/L in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/L total phosphorus. These values are not to exceed more than 10% of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of nitrogen: phosphorus = 10:1 shall be used.
19. "BP" = Basin Plan (Comprehensive Water Quality Control Plan, San Diego Basin (9).
20. Effluent limitations for discharges to the surf zone were obtained assuming an initial dilution factor of three and applying the calculations and procedures found in the Water Quality Control Plan, Ocean Waters of California, 1997, except in cases in which BAT can achieve lower effluent pollutant concentrations. BAT effluent limitations are applied at the "end-of-pipe" and dilution factors are not applicable.
21. Surface waters with municipal beneficial uses are identified in the Basin Plan.
22. DOHS = California Department of Health Services - Maximum Contaminant Levels for drinking water.
23. Degradation shall be determined by comparison of the waste field and reference site(s) for characteristics such as species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.
24. Significant difference is defined as statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.
25. Compliance with the water quality objectives shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed. Since the effluent limitations in this Order are based on an initial dilution factor of zero with the exception of discharges to the surf zone, compliance with the water quality objectives shall be met at all locations in the receiving water.
26. Kelp Beds are significant aggregations of marine algae of the genera *Macrocystis* and *Nereocystis*. Kelp Beds include the total foliage canopy of *Macrocystis* and *Nereocystis* plants throughout the water column.
27. Initial dilution is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of the discharges.
28. Shellfish are organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e. mussels, clams, and oysters).

29. HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane
30. Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.
31. Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor, nonachlor-gamma, and oxychlordane.
32. DDT shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.
33. Halomethanes shall mean the sum of bromoform, bromomethane, (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.
34. Heptachlor shall mean the sum of heptachlor and heptachlor epoxide.
35. PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
36. "Average Monthly Effluent Limitation"(AMEL) = The highest allowable average of daily pollutant discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of measurements.
37. The 30-day average shall be the arithmetic mean, using the results of analyses of all samples collected during any 30 consecutive calendar day period.
38. U.S. EPA approved methodology for the analysis of MTBE in water include methods 8020 and 8260B. Method 8020 yields "false positives" at times and is less accurate than method 8260B. Method 8260B is more accurate, therefore it is recommended that 8260B is used. If the enrollee chooses to use method 8020, and the analytical results show that MTBE was detected, then the enrollee shall run a second analysis for MTBE using method 8260B, in order to confirm the presence or absence of MTBE in the groundwater. The level of accuracy of a particular methodology shall not exempt an enrollee from the potential of enforcement action being taken due to exceedences of permit limits.

County of San Diego, Dept. of Environmental Health, Site Assessment & Mitigation Program, January 20, 2000 SAM Manual, Section 5-Site Investigation Techniques, IX Lab Analysis, Table 5-4, states that EPA Method 8260B is required for MTBE analysis.

State Water Resources Control Board letter dated April 13, 2000 to Regional Board's/Underground Storage Tank Program Managers and Local Oversight Program Managers, states that the appropriate analytical test method for MTBE is 8260.

TENTATIVE ORDER NO. 2001-96

ATTACHMENT A

BASIN PLAN WASTE DISCHARGE PROHIBITIONS

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by Section 13050 of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California, could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, is prohibited.
2. The discharge of waste to land, except as authorized by waste discharge requirements of the terms described in California Water Code Section 13264, is prohibited.
3. The discharge of pollutants or dredged or fill material to waters of the United States, except as authorized by an NPDES permit or a dredge or fill material permit (subject to the exemption described in California Water Code Section 13376), is prohibited.
4. The discharge of treated or untreated waste to lakes or reservoirs used for municipal water supply, or to inland surface water tributaries thereto, is prohibited.
5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the enrollee is prohibited unless the discharge is authorized by the Regional Board.
7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner that may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.
8. Any discharge to a storm water conveyance system that is not composed entirely of "storm water" is prohibited unless authorized by the Regional Board. [Federal Regulations 40 CFR 122.26 (b) defines storm water as storm water runoff, snow melt runoff, and surface runoff and drainage.]

9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.
10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.
11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.
12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.
13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.
14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities that cause deleterious bottom deposits, turbidity or discoloration in waters of the state or that unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.
15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.
16. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.
17. The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at mean lower low water (MLLW) is prohibited.
18. The discharge of treated sewage from vessels that do not have a properly functioning US Coast Guard certified Type I or Type II marine sanitation device to portions of San Diego Bay that are greater than 30 feet deep at MLLW is prohibited.

TENTATIVE ORDER NO. 2001-96

ATTACHMENT B

40 CFR STANDARD PROVISIONS REFERENCES

40 CFR 122.1 Purpose and scope

40 CFR 122.1(a) and (b).

40 CFR 122.2 Definitions

40 CFR 122.2(all).

40 CFR 122.3 Exclusions

40 CFR 122.3(a) through (g).

40 CFR 122.4 Prohibitions (applicable to State programs, see Section 123.25).

40 CFR 122.4(a) through (i).

40 CFR 122.5 Effect of a permit (applicable to State programs, see Section 123.25).

40 CFR 122.5(a) through (c).

40 CFR 122.6 Continuation of expiring permits

40 CFR 122.6(b) through (d).

40 CFR 122.7 Confidentiality of information (applicable to State programs, see Section 123.25).

40 CFR 122.7 (a) through (c).

40 CFR 122.21 Application for a Permit (applicable to State programs, see Section 123.25).

40 CFR 122.21(a) through (p).

40 CFR 122.22 Signatories to permit applications and reports (applicable to State programs, see Section 123.25).

(a) Applications. All applications shall be signed as follows:

- (1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or

more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in Section 122.22(a)(1)(i) . The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under §122.22(a)(1)(ii) rather than to specific individuals.

- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
or
 - (3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- (b) All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described in paragraph (a) of this section;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,
 - (3) The written authorization is submitted to the Director.
- (c) Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

40 CFR 122.23 Concentrated animal feeding operations (applicable to State programs, see Section 123.25).

40 CFR 122.23(a) through (c).

40 CFR 122.24 Concentrated aquatic animal production facilities (applicable to State programs, see Section 123.25).

40 CFR 122.24(a) through (c).

40 CFR 122.25 Aquaculture projects (applicable to State programs, see Section 123.25).

40 CFR 122.25(a) and (b).

40 CFR 122.26 Storm water discharges (applicable to State programs, see Section 123.25).

40 CFR 122.26(a) through (g).

40 CFR 122.27 Silvicultural activities (applicable to State programs, see Section 123.25).

40 CFR 122.27(a) and (b).

40 CFR 122.28 General permits (applicable to State programs, see Section 123.25).

40 CFR 122.28(a) and (b).

40 CFR 122.29 New sources and new dischargers

40 CFR 122.29(a) through (d).

40 CFR 122.30 through 122.37 (Various sections on regulation of small MS4's).

40 CFR 122.41 Conditions applicable to all permits (applicable to State programs, see Section 123.25).

The following conditions apply to all NPDES permits. Additional conditions applicable to NPDES permits are in Section 122.42. All conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

- (a) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
- (1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- (2) The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Clean Water Act provides that any person who negligently violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- (3) Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed

\$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

- (b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- (c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- (e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- (f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- (g) Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.
- (h) Duty to provide information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.
- (i) Inspection and entry. The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:
 - (1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;
and

- (4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

(j) Monitoring and records.

- (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
- (3) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (4) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in the permit.
- (5) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

- (k) Signatory requirement. All applications, reports, or information submitted to the Director shall be signed and certified (See 40 CFR 122.22). The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (l) Reporting requirements.
- (1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in §122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under §122.42(a)(1).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - (2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
 - (3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See §122.61; in some cases, modification or revocation and reissuance is mandatory.)
 - (4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR

part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

- (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- (5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (6) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (ii) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (A) Any unanticipated bypass which exceeds any effluent limitation in the Permit (See 40 CFR 122.41(g)).
 - (B) Any upset which exceeds any effluent limitation in the permit.
 - (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours.
(See 40 CFR 122.44(g)).
 - (iii) The Director may waive the written report on a case-by-case basis for reports under paragraph (1)(6)(ii) of this section if the oral report has been received within 24 hours.
- (7) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (1)(6) of this section.
- (8) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(m) Bypass

(1) Definitions.

- (i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- (ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(2) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (m)(3) and (m)(4) of this section.

(3) Notice

- (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (l)(6) of this section (24-hour notice).

(4) Prohibition of bypass.

- (i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (m)(3) of this section.
- (ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.

(n) Upset

- (1) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (2) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (3) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph (1)(6)(ii)(B) of this section (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph (d) of this section.
- (4) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

40 CFR 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see Section 123.25).

The following conditions, in addition to those set forth in Section 122.41, apply to all NPDES permits within the categories specified below:

- (a) Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under Section 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (i) One hundred micrograms per liter (100 ug/l);

- (ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Sec. 122.21(g)(7); or
 - (iv) The level established by the Director in accordance with Section 122.44(f).
- (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (i) Five hundred micrograms per liter (500 µg/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 122.21(g)(7).
 - (iv) The level established by the Director in accordance with Sec. 122.44(f).
- (b) Publicly owned treatment works. All POTWs must provide adequate notice to the Director of the following:
 - (1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; and
 - (2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (3) For purposes of this paragraph, adequate notice shall include information on
 - (i) the quality and quantity of effluent introduced into the POTW, and
 - (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (c) Municipal separate storm sewer systems. The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under Sec. 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:
 - (1) The status of implementing the components of the storm water management program that are established as permit conditions;
 - (2) Proposed changes to the storm water management programs that are established as permit condition. Such proposed changes shall be consistent with Section 122.26(d)(2)(iii) of this part; and

- (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under Sections 122.26(d)(2)(iv) and (d)(2)(v) of this part;
 - (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year;
 - (5) Annual expenditures and budget for year following each annual report;
 - (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs;
 - (7) Identification of water quality improvements or degradation;
- (d) Storm water discharges. The initial permits for discharges composed entirely of storm water issued pursuant to Section 122.26(e)(7) of this part shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three years after the date of issuance of the permit.

40 CFR 122.43 Establishing permit conditions (applicable to State programs, see Section 123.25)

40 CFR 122.43(a) through (c).

40 CFR 122.44 Establishing limitations, standards, and other permit conditions (applicable to State programs, see Section 123.25).

40 CFR 122.44(a) through (s).

40 CFR 122.45 Calculating NPDES permit conditions (applicable to State programs, see Section 123.25).

40 CFR 122.45(a) through (h).

40 CFR 122.46 Duration of permits (applicable to State programs, see Section 123.25).

40 CFR 122.46(a) through (e).

40 CFR 122.47 Schedules of compliance (applicable to State programs, see Section 123.25).

40 CFR 122.47(a) and (b).

**40 CFR 122.48 Requirements for recording and reporting of monitoring results
(applicable to State programs, see Section 123.25).**

40 CFR 122.48(a) through (c).

40 CFR 122.49 Considerations under Federal law.

40 CFR 122.49(a) through (g).

**40 CFR 122.50 Disposal into wells, into publicly owned treatment works (applicable to
State programs, see Section 123.25).**

40 CFR 122.50(a) through (c).

40 CFR 122.61 Transfer of permits (applicable to State programs, see Section 123.25).

40 CFR 122.61(a) through (b).

**40 CFR 122.62 Modification or revocation and reissuance of permits (applicable to State
programs, see Section 123.25).**

40 CFR 122.62(a) through (b).

40 CFR 122.63 Minor modifications of permits.

40 CFR 122.63(a) through (g).

40 CFR 122.64 Termination of permits (applicable to State programs, see Section 123.25).

40 CFR 122.64(a) through (b)

Note: The sections of 40 CFR Standard Provisions listed above that are not quoted verbatim can be obtained through the following website: www.access.gpo.gov.

TENTATIVE ORDER NO. 2001-96

ATTACHMENT C

ENCLOSED BAYS AND ESTUARIES POLICY
DISCHARGE PROHIBITIONS

1. New discharges of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, which are not consistently treated and discharged in a manner that would enhance the quality of receiving waters above that which would occur in the absence of the discharge, shall be prohibited.
2. The discharge of municipal and industrial waste sludge and untreated sludge digester supernatant, centrate, or filtrate to enclosed bays and estuaries shall be prohibited.
3. The deposition of rubbish or refuse into surface waters or at any place where they would be eventually transported to enclosed bays or estuaries shall be prohibited.
4. The direct or indirect discharge of silt, sand, soil clay, or other earthen materials from onshore operations including mining, construction, agriculture, and lumbering, in quantities that unreasonably affect or threaten to affect beneficial uses shall be prohibited.
5. The discharge of materials of petroleum origin in sufficient quantities to be visible or in violation of waste discharge requirements shall be prohibited, except when such discharges are conducted for scientific purposes. Such testing must be approved by the Regional Board and the Department of Fish and Game.
6. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste shall be prohibited.
7. The discharge or by-passing of untreated waste to bays and estuaries shall be prohibited.

Item 5

ORDER NO. 2001-96

ATTACHMENT D

40 CFR 131.38

**ESTABLISHMENT OF NUMERIC CRITERIA FOR PRIORITY TOXIC
POLLUTANTS FOR THE STATE OF CALIFORNIA.**

- (a) Scope. This section promulgates criteria for priority toxic pollutants in the State of California for inland surface waters and enclosed bays and estuaries. This section also contains a compliance schedule provision.
- (b) (1) Criteria for Priority Toxic Pollutants in the State of California is described in this table.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**TENTATIVE
MONITORING AND REPORTING PROGRAM 2001-96
FOR
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES
FROM CONSTRUCTION, REMEDIATION, AND PERMANENT
GROUNDWATER EXTRACTION PROJECTS
TO
SURFACE WATERS WITHIN THE SAN DIEGO REGION
EXCEPT FOR SAN DIEGO BAY**

A. PURPOSE

This monitoring program is intended to:

- Document short-term and long-term effects of the discharge on receiving waters, sediments, biota, and beneficial uses of the receiving water.
- Determine compliance with NPDES permit terms and conditions.
- Be used to determine compliance with water quality objectives.

B. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at monitoring points that ensure the sample is representative of the discharge and, unless otherwise directed, before the effluent joins or is diluted by any other waste stream, body of water, or substance. The Regional Board may specify the monitoring point in the Enrollment Letter. Monitoring points shall not be changed without notification to, and the approval of, the Regional Board.
2. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified by this Order.
3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board.
4. Monitoring results must be reported in a format developed by the Enrollee and subject to approval of the Regional Board (Section B.7).

5. If the discharger monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.
6. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.
7. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurement;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed analyses;
 - e. The analytical techniques or method used; and
 - f. The results of such analyses.
8. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Regional Board, in this Order or the Enrollment Letter.
9. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
10. The discharger shall report all instances of noncompliance not reported under Reporting Requirement No. H.5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirements No. H.5.
11. The monitoring reports shall be signed by an authorized person as required by Reporting Requirements No. H.12.
12. A composite sample is defined as a combination of at least 8 sample aliquots of at least 100 milliliters each, collected at periodic intervals during the operating hours of a facility over a 24-hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each

aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

13. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
14. For every item where the requirements are not met, the discharger shall submit a statement of actions undertaken or proposed to be taken, which will bring the discharge into full compliance with the requirements in the shortest time feasible, and submit a timetable for implementation of such actions.

C. TREATMENT SYSTEM STATUS

The daily status (e.g., onsite, in operation/on standby, etc.) of any treatment systems used to achieve compliance with Tentative Order No. 2001-96 and the associated Enrollment Letter, shall be reported monthly.

D. GROUNDWATER DISCHARGE MONITORING

1. For discharges associated with gasoline or diesel underground or above ground storage tanks (Remediation Projects) (as determined by the Regional Board), the discharge monitoring shall be conducted as listed below. For remediation of groundwaters containing individual solvents (e.g. trichloroethylene, tetrachloroethane, etc.) not associated with fuel products, or other substances with effluent concentration limitations in Tentative Order No. 2001-96, the monitoring requirements may be modified in the Enrollment Letter to include a sampling frequency of once every two weeks for the individual compound(s) present in lieu of benzene, ethylbenzene, toluene, and xylene (collectively BTEX) monitoring requirements, provided that BTEX are not present, and the results reported monthly:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	NA	daily	monthly
Total Nitrogen ¹	mg/L	grab	quarterly	quarterly
	lb/d	"	"	"
Total Phosphorus ¹	mg/L	"	"	"
	lb/d	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	quarterly	quarterly
	lb/d	"	"	"

Note: ml/L = milliliters per liter
 µg/L = micrograms per liter
 TUC = chronic toxicity units

mg/L = milligrams per liter
 TUa = acute toxicity units
 lb/d = pounds per day

NTU = nephelometric turbidity Units
 gpd = Gallons Per Day

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Hydrogen Sulfide	µg/L	grab	semiannually	semiannually
	lb/d	"	"	"
Total Residual Chloride (TRC) ²	µg/L	"	daily if chlorinating	monthly
	lb/d	"	"	"
pH	Units	"	monthly	monthly
Benzene ^{CTR}	µg/L	"	every 2 weeks	monthly
	lb/d	"	"	"
Ethylbenzene ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Toluene ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Xylene	µg/L	"	"	"
	lb/d	"	"	"
MTBE	µg/L	"	"	"
Total Petroleum Hydrocarbons ³	µg/L	"	monthly	monthly
	lb/d	"	"	"
Tributyltin	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Arsenic ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Cadmium ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Chromium ^{4, CTR} (hexavalent)	µg/L	"	"	"
	lb/d	"	"	"
Copper ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Lead ^{CTR}	µg/L	"	quarterly	quarterly
	lb/d	"	"	"
Mercury ^{CTR}	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Nickel ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Silver ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Zinc ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Cyanide ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds (non-chlorinated)	µg/L	"	"	"
	lb/d	"	"	"

Note: ml/L = milliliters per liter
µg/L = micrograms per liter
TUc = chronic toxicity units

mg/L = milligrams per liter
TUa = acute toxicity units
lb/d = pounds per day

NTU = nephelometric turbidity Units
gpd = Gallons Per Day

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Chlorinated Phenolics	µg/L	grab	semiannually	semiannually
	lb/d	"	"	"
Acute Toxicity	TUa	"	quarterly	quarterly
Chronic Toxicity ⁵	TUc	"	"	"
1,1,2,2-Tetrachloroethane (PCA) ^{6, CTR}	µg/L	"	semiannually	semiannually
1,1,1-Trichloroethane (TCA) ^{6, CTR}	mg/L	"	"	"
1,1,2-Trichloroethane (TCA) ^{6, CTR}	mg/L	"	"	"
1,2-Dichloroethane ^{6, CTR}	µg/L	"	"	"
Tetrachloroethylene (PCE) ^{6, CTR}	µg/L	"	"	"
Trichloroethylene ^{CTR} (TCE) ⁶	µg/L	"	"	"
Vinyl Chloride ^{6, CTR}	µg/L	"	"	"
Carbon Tetrachloride ^{6, CTR}	µg/L	"	"	"
Base/Neutrals ⁷	µg/L	"	"	"
	lb/d	"	"	"
126 Priority Pollutants – Attachment D				
(Excluding Above Marked Pollutants)		"	"	"

2. For discharges which are not associated with gasoline or diesel underground or above ground storage tanks (as determined by the Regional Board), discharge monitoring shall be conducted as follows⁸:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	na	daily	quarterly
Total Nitrogen ¹	mg/L	grab	quarterly	quarterly
Total Phosphorus ¹	mg/L	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	"	"
	lb/d	"	"	"
Hydrogen Sulfide	mg/L	"	semiannually	semiannually
	lb/d	"	"	"
Total Residual Chlorine (TRC) ²	µg/L	"	daily if	monthly
	lb/d	"	chlorinating	"
pH	Units	"	monthly	quarterly

Note: ml/L = milliliters per liter
µg/L = micrograms per liter
TUc = chronic toxicity units

mg/L = milligrams per liter
TUa = acute toxicity units
lb/d = pounds per day

NTU = nephelometric turbidity Units
gpd = Gallons Per Day

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Total Petroleum	µg/L	grab	quarterly	quarterly
Hydrocarbons ³	lb/d	"	"	"
MTBE	µg/L	"	"	"
Tributyltin	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Arsenic ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Cadmium ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Chromium ^{4, CTR}	µg/L	"	"	"
(hexavalent)	lb/d	"	"	"
Copper ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Lead ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Mercury ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Nickel ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Silver ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Zinc ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Cyanide ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds	µg/L	"	"	"
(non-chlorinated)	lb/d	"	"	"
Chlorinated Phenolics	µg/L	"	"	"
	lb/d	"	"	"
Acute Toxicity	TUa	"	quarterly	quarterly
Chronic Toxicity ⁵	TUc	"	"	"
Base/Neutrals ⁷	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
126 Priority Pollutants – Attachment D (Excluding Above Marked Pollutants)		"	"	"

Note: ml/L = milliliters per liter
µg/L = micrograms per liter
TUc = chronic toxicity units

mg/L = milligrams per liter
TUa = acute toxicity units
lb/d = pounds per day

NTU = nephelometric turbidity Units
gpd = Gallons Per Day

3. For long term discharges (greater than 6 months) in RURAL AREAS (as determined by the Regional Board), discharge monitoring shall be conducted as follows⁸:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	na	daily	monthly
Total Nitrogen ¹	mg/L	grab	quarterly	quarterly
Total Phosphorus ¹	mg/L	"	"	"
	lb/d	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	"	"
Hydrogen Sulfide	µg/L	"	"	"
Total Petroleum				
Hydrocarbons ³	µg/L	"	"	"
Total Residual Chlorine (TRC) ²	µg/L	"	daily if	monthly
	lb/d	"	chlorinating	"
pH	Units	"	monthly	quarterly
MTBE	µg/L	"	quarterly	quarterly
Acute Toxicity	TUa	"	semiannually	semiannually
Chronic Toxicity ⁵	TUc	"	"	"
Base/Neutrals ⁷	µg/L	"	"	"
126 Priority Pollutants – Attachment D		"	"	"

4. For short term (duration of 6 months or less at a particular groundwater extraction site) discharges in RURAL AREAS, monitoring shall be conducted as follows:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	na	daily	monthly
Total Nitrogen ¹	mg/L	grab	every two weeks	monthly
Total Phosphorus ¹	mg/L	"	"	"
	lb/d	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	"	"
Hydrogen Sulfide	µg/L	"	"	"
Total Petroleum				
Hydrocarbons ³	µg/L	"	every two weeks	monthly
Total Residual Chlorine (TRC) ²	µg/L	"	daily if	"
	lb/d	"	chlorinating	"
pH	Units	"	monthly	quarterly
MTBE	µg/L	"	quarterly	"

Note: ml/L = milliliters per liter
µg/L = micrograms per liter
TUc = chronic toxicity units

mg/L = milligrams per liter
TUa = acute toxicity units
lb/d = pounds per day

NTU = nephelometric turbidity Units
gpd = Gallons Per Day

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Acute Toxicity	TUa	grab	semiannually	semiannually
Chronic Toxicity ⁵	TUc	"	"	"
Base/Neutrals ⁷	µg/L	"	"	"
126 Priority Pollutants – Attachment D		"	"	"

5. **For short term (duration of 6 months or less at a particular groundwater extraction site) discharges in URBAN AREAS,** discharge monitoring shall be conducted as follows⁸:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	NA	daily	monthly
Total Nitrogen ¹	mg/L	grab	every other week	"
Total Phosphorus ¹	mg/L	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	"	"
	lb/d	"	"	"
Hydrogen Sulfide	mg/L	"	"	"
	lb/d	"	"	"
Total Residual Chlorine (TRC) ²	µg/L	"	daily if chlorinating	"
pH	lb/d	"	every other week	"
Total Petroleum Hydrocarbons ³	µg/L	"	"	"
	lb/d	"	"	"
MTBE	µg/L	"	"	"
Tributyltin	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Arsenic ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Cadmium ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Chromium ^{4, CTR}	µg/L	"	"	"
(hexavalent)	lb/d	"	"	"
Copper ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Lead ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Mercury ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Nickel ^{CTR}	µg/L	grab	"	"
	lb/d	"	"	"

Note: ml/L = milliliters per liter
µg/L = micrograms per liter
TUc = chronic toxicity units

mg/L = milligrams per liter
TUa = acute toxicity units
lb/d = pounds per day

NTU = nephelometric turbidity Units
gpd = Gallons Per Day

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Silver ^{CTR}	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Zinc ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Cyanide ^{CTR}	µg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds (non-chlorinated)	µg/L	"	"	"
	lb/d	"	"	"
Chlorinated Phenolics	µg/L	"	"	"
	lb/d	"	"	"
Chronic Toxicity ⁵	TUc	"	quarterly	quarterly
Base/Neutrals ⁷	µg/L	"	"	"
	lb/d	"	"	"
126 Priority Pollutants – Attachment D (Excluding Above Marked Pollutants)		"	semiannually	semiannually

6. For discharges associated with Sewer System Replacement, or Wastewater Treatment Plant Construction or Expansion Projects, in addition to monitoring for those Constituents listed in Monitoring Provision D.1, D.2, D.3, D.4, or D.5, discharge monitoring shall be conducted for the following⁸:

Constituent	Units	Sample Type	Minimum Frequency Of Analysis	Reporting Frequency
Total Coliform	MPN100/ml	grab	weekly	Monthly
Fecal Coliform	"	"	"	"
Dissolved Oxygen	mg/L	"	"	"
126 Priority Pollutants – Attachment D	---	"	semiannually	Semiannually

E. RECEIVING WATER MONITORING

The discharger shall obtain a monthly upstream sample of the receiving water if the discharge is to a river or stream; or from an area unaffected by the discharge for other receiving waters, and analyze the sample for turbidity and report the results monthly. The turbidity of the receiving water is necessary to determine compliance of the effluent turbidity. The discharger shall also submit a monthly report discussing any turbidity plumes created by the discharge including a description (e.g., color, extent, duration, etc.) of any turbidity plumes.

Note: ml/L = milliliters per liter
µg/L = micrograms per liter
TUc = chronic toxicity units

mg/L = milligrams per liter
TUa = acute toxicity units
lb/d = pounds per day

NTU = nephelometric turbidity Units
gpd = Gallons Per Day

For discharges to surf zones, in lieu of obtaining turbidity samples in unaffected areas, the discharger shall submit a monthly report describing (e.g., color, extent, duration, etc.) any turbidity plumes caused by the discharge.

The Regional Board may increase receiving water monitoring requirements on a case-by-case basis. Additional receiving water monitoring for individual discharges may be required, where necessary, to show that during the term of the discharge, applicable surface water quality objectives will be maintained.

For certain metals, the hardness of the receiving water is required to calculate the effluent limit, therefore the discharger shall measure the hardness of the receiving water at the same frequency as metals analysis.

F. ANNUAL SUMMARY OF MONITORING DATA

A summary of monitoring data for the previous year shall be submitted to the Regional Board previous to March 1st of each year. The report shall contain both tabular and graphical summaries of the previous year's data. If the duration of the discharge is six months or less, an annual summary is not required.

G. REPORT OF DISCHARGE TERMINATION

Within thirty days of the termination of the discharge, the discharger shall submit a letter to the Regional Board specifying the date the groundwater extraction waste discharge was terminated.

H. REPORTING FREQUENCY

Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

<u>REPORTING FREQUENCY</u>	<u>REPORT PERIOD</u>	<u>REPORT DUE</u>
Monthly	January, February March, April, May June, July, August September, October November, December	By the 30th day of the following month*.
Quarterly	January - March April - June July - September October - December	April 30 July 30 October 30 January 30
Semiannually	January - June July - December	July 30 January 30
Annual	January - December	March 1

* The monthly report for January is due no later than February 28th.

Monitoring Reports shall be submitted to the following address:

Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124-1324
Attn: Industrial Compliance Unit

TENTATIVE

John H. Robertus
Executive Officer
September 14, 2001

ENDNOTES

1. Analysis of nitrogen and phosphorus are not required for direct discharges to the surf zone.
2. Total Chlorine Residual must be monitored if any portion of the extraction waste stream is chlorinated.
3. Groundwater remediation projects involving only diesel fuels and groundwater dewatering operations may use the California Department of Health Services' recommended analytical procedure contained in the Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989 (LUFT Manual) for determining diesel total petroleum hydrocarbon concentrations (TPH - diesel) in the discharge unless other analytical methods are specified by the Regional Board. Groundwater remediation projects involving only gasoline may use standard analytical techniques contained in the LUFT Manual for the determination of TPH concentrations in the discharge unless other methods are specified by the Regional Board.
4. The hexavalent and trivalent chromium limits may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for hexavalent chromium, and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.
5. Discharges with a duration of 30 days or less at a particular groundwater extraction site shall conduct one acute toxicity test in lieu of chronic toxicity testing.
6. Use USEPA Method Number 624(GCMS) for these constituents. The Regional Board may waive monitoring requirements for these constituents in cases where the discharger identifies and requests use of an appropriate "indicator constituent" in lieu of these constituents.
7. "Base/Neutrals" are listed in 40 CFR 136.
8. For any discharge where gasoline, diesel, other petroleum product(s) or solvent based constituent(s) are encountered, knowingly or incidental to a construction or other project as a result of drawdown, the discharger shall conduct monitoring for those constituents in Monitoring Provision D.1 in addition to any other applicable monitoring Provision herein.

Dated: April 27, 2000.

Carol Browner,
Administrator.

For the reasons set out in the preamble, part 131 of chapter I of title 40 of the Code of Federal Regulations is amended as follows:

**PART 131—WATER QUALITY
STANDARDS**

1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

Subpart D—[Amended]

2. Section 131.38 is added to subpart D to read as follows:

§ 131.38 Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.

(a) *Scope.* This section promulgates criteria for priority toxic pollutants in the State of California for inland surface

waters and enclosed bays and estuaries. This section also contains a compliance schedule provision.

(b)(1) Criteria for Priority Toxic Pollutants in the State of California as described in the following table:

BILLING CODE 6560-SO-P

A		B Freshwater		C Saltwater		D Human Health (10 ⁻⁶ risk for carcinogens) For consumption of:	
# Compound	CAS Number	Criterion Maximum Conc. ^d B1	Criterion Continuous Conc. ^a B2	Criterion Maximum Conc. ^d C1	Criterion Continuous Conc. ^d C2	Water & Organisms (µg/L) D1	Organisms Only (µg/L) D2
1. Antimony	7440360					14 a,s	4300 a,t
2. Arsenic ^b	7440382	340 i,m,w	150 i,m,w	69 i,m	36 i,m		
3. Beryllium	7440417					n	n
4. Cadmium ^b	7440439	4.3 e,i,m,w,x	2.2 e,i,m,w	42 i,m	9.3 i,m	n	n
5a. Chromium (III)	16065831	550 e,i,m,o	180 e,i,m,o			n	n
5b. Chromium (VI) ^b	18540299	16 i,m,w	11 i,m,w	1100 i,m	50 i,m	n	n
6. Copper ^b	7440508	13 e,i,m,w,x	9.0 e,i,m,w	4.8 i,m	3.1 i,m	1300	
7. Lead ^b	7439921	65 e,i,m	2.5 e,i,m	210 i,m	8.1 i,m	n	n
8. Mercury ^b	7439976	[Reserved]	[Reserved]	[Reserved]	[Reserved]	0.050 a	0.051 a
9. Nickel ^b	7440020	470 e,i,m,w	52 e,i,m,w	74 i,m	8.2 i,m	610 a	4600 a
10. Selenium ^b	7782492	[Reserved] p	5.0 q	290 i,m	71 i,m	n	n
11. Silver ^b	7440224	3.4 e,i,m		1.9 i,m			
12. Thallium	7440280					1.7 a,s	6.3 a,t
13. Zinc ^b	7440666	120 e,i,m,w,x	120 e,i,m,w	90 i,m	81 i,m		
14. Cyanide ^b	57125	22 o	5.2 o	1 r	1 r	700 a	220,000 a,j
15. Asbestos	1332214					7,000,000 fibers/L k,s	
16. 2,3,7,8-TCDD (Dioxin)	1746016					0.000000013 c	0.000000014 c
17. Acrolein	107028					320 s	780 t
18. Acrylonitrile	107131					0.059 a,c,s	0.66 a,c,t
19. Benzene	71432					1.2 a,c	71 a,c
20. Bromoform	75252					4.3 a,c	360 a,c
21. Carbon Tetrachloride	56235					0.25 a,c,s	4.4 a,c,t
22. Chlorobenzene	108907					680 a,s	21,000 a,j,t
23. Chlorodibromomethane	124481					0.401 a,c	34 a,c
24. Chloroethane	75003						
25. 2-Chloroethylvinyl Ether	110758						

						[Reserved]	[Reserved]
26. Chloroform	67663					0.56 a,c	46 a,c
27. Dichlorobromomethane	75274						
28. 1,1-Dichloroethane	75343					0.38 a,c,s	99 a,c,t
29. 1,2-Dichloroethane	107062					0.057 a,c,s	3.2 a,c,t
30. 1,1-Dichloroethylene	75354					0.52 a	39 a
31. 1,2-Dichloropropane	78875					10 a,s	1,700 a,t
32. 1,3-Dichloropropylene	542756					3,100 a,s	29,000 a,t
33. Ethylbenzene	100414					48 a	4,000 a
34. Methyl Bromide	74839					n	n
35. Methyl Chloride	74873					4.7 a,c	1,600 a,c
36. Methylene Chloride	75092					0.17 a,c,s	11 a,c,t
37. 1,1,2,2-Tetrachloroethane	79345					0.8 c,s	8.85 c,t
38. Tetrachloroethylene	127184					6,800 a	200,000 a
39. Toluene	108883					700 a	140,000 a
40. 1,2-Trans-Dichloroethylene	156605					n	n
41. 1,1,1-Trichloroethane	71556					0.60 a,c,s	42 a,c,t
42. 1,1,2-Trichloroethane	79005					2.7 c,s	81 c,t
43. Trichloroethylene	79016					2 c,s	525 c,t
44. Vinyl Chloride	75014					120 a	400 a
45. 2-Chlorophenol	95578					93 a,s	790 a,t
46. 2,4-Dichlorophenol	120832					540 a	2,300 a
47. 2,4-Dimethylphenol	105679					13.4 s	765 t
48. 2-Methyl-4,6-Dinitrophenol	534521					70 a,s	14,000 a,t
49. 2,4-Dinitrophenol	51285						
50. 2-Nitrophenol	88755						
51. 4-Nitrophenol	100027						
52. 3-Methyl-4-Chlorophenol	59507						
53. Pentachlorophenol	87865	19 f,w	15 f,w	13	7.9	0.28 a,c	8.2 a,c,j
54. Phenol	108952					21,000 a	4,600,000 a,j,t
55. 2,4,6-Trichlorophenol	88062					2.1 a,c	6.5 a,c
56. Acenaphthene	83329					1,200 a	2,700 a
57. Acenaphthylene	208968						
58. Anthracene	120127					9,600 a	110,000 a

59. Benzidine	92875					0.00012 a,c,s	0.00054 a,c,t
60. Benzo(a)Anthracene	56553					0.0044 a,c	0.049 a,c
benzo(a)Pyrene	50328					0.0044 a,c	0.049 a,c
62. Benzo(b)Fluoranthene	205992					0.0044 a,c	0.049 a,c
63. Benzo(ghi)Perylene	191242						
64. Benzo(k)Fluoranthene	207089					0.0044 a,c	0.049 a,c
65. Bis(2-Chloroethoxy)Methane	111911						
66. Bis(2-Chloroethyl)Ether	111444					0.031 a,c,s	1.4 a,c,t
67. Bis(2-Chloroisopropyl)Ether	39638329					1,400 a	170,000 a,t
68. Bis(2-Ethylhexyl)Phthalate	117817					1.8 a,c,s	5.9 a,c,t
69. 4-Bromophenyl Phenyl Ether	101553						
70. Butylbenzyl Phthalate	85687					3,000 a	5,200 a
71. 2-Chloronaphthalene	91587					1,700 a	4,300 a
72. 4-Chlorophenyl Phenyl Ether	7005723						
73. Chrysene	218019					0.0044 a,c	0.049 a,c
74. Dibenzo(a,h)Anthracene	53703					0.0044 a,c	0.049 a,c
75. 1,2 Dichlorobenzene	95501					2,700 a	17,000 a
76. 1,3 Dichlorobenzene	541731					400	2,600
77. 1,4 Dichlorobenzene	106467					400	2,600
3,3'-Dichlorobenzidine	91941					0.04 a,c,s	0.077 a,c,t
79. Diethyl Phthalate	84662					23,000 a,s	120,000 a,t
80. Dimethyl Phthalate	131113					313,000 s	2,900,000 t
81. Di-n-Butyl Phthalate	84742					2,700 a,s	12,000 a,t
82. 2,4-Dinitrotoluene	121142					0.11 c,s	9.1 c,t
83. 2,5-Dinitrotoluene	606202						
84. Di-n-Octyl Phthalate	117840						
85. 1,2-Diphenylhydrazine	122667					0.040 a,c,s	0.54 a,c,t
86. Fluoranthene	206440					300 a	370 a
87. Fluorene	86737					1,300 a	14,000 a
88. Hexachlorobenzene	118741					0.00075 a,c	0.00077 a,c
89. Hexachlorobutadiene	87583					0.44 a,c,s	50 a,c,t
90. Hexachlorocyclopentadiene	77474					240 a,s	17,000 a,j,t
91. Hexachloroethane	67721					1.9 a,c,s	8.9 a,c,t

92. Indeno(1,2,3-cd) Pyrene	193395					0.0044 a,c	0.049 a,c
93. Isophorone	78591					8.4 c,s	600 c,t
94. Naphthalene	91203						
95. Nitrobenzene	98953					7 a,s	1,900 a,j,t
96. N-Nitrosodimethylamine	62759					0.00069 a,c,s	8.1 a,c,t
97. N-Nitrosodi-n-Propylamine	621647					0.005 a	1.4 a
98. N-Nitrosodiphenylamine	86306					5.0 a,c,s	16 a,c,t
99. Phenanthrene	85018						
100. Pyrene	129000					960 a	11,000 a
101. 1,2,4-Trichlorobenzene	120821						
102. Aldrin	309002	3 g		1.3 g		0.00013 a,c	0.00014 a,c
103. alpha-BHC	319846					0.0039 a,c	0.013 a,c
104. beta-BHC	319857					0.014 a,c	0.046 a,c
105. gamma-BHC	58899	0.95 w		0.16 g		0.019 c	0.063 c
106. delta-BHC	319868						
107. Chlordane	57749	2.4 g	0.0043 g	0.09 g	0.004 g	0.00057 a,c	0.00059 a,c
108. 4,4'-DDT	50293	1.1 g	0.001 g	0.13 g	0.001 g	0.00059 a,c	0.00059 a,c
109. 4,4'-DDE	72559					0.00059 a,c	0.00059 a,c
110. 4,4'-DDD	72548					0.00083 a,c	0.00084 a,c
111. Dieldrin	60571	0.24 w	0.056 w	0.71 g	0.0019 g	0.00014 a,c	0.00014 a,c
112. alpha-Endosulfan	959988	0.22 g	0.056 g	0.034 g	0.0087 g	110 a	240 a
113. beta-Endosulfan	33213659	0.22 g	0.056 g	0.034 g	0.0087 g	110 a	240 a
114. Endosulfan Sulfate	1031078					110 a	240 a
115. Endrin	72208	0.086 w	0.036 w	0.037 g	0.0023 g	0.76 a	0.81 a,j
116. Endrin Aldehyde	7421934					0.76 a	0.81 a,j
117. Heptachlor	76448	0.52 g	0.0038 g	0.053 g	0.0036 g	0.00021 a,c	0.00021 a,c
118. Heptachlor Epoxide	1024573	0.52 g	0.0038 g	0.053 g	0.0036 g	0.00010 a,c	0.00011 a,c
119-125. Polychlorinated biphenyls (PCBs)			0.014 u		0.03 u	0.00017 c,v	0.00017 c,v
125. Toxaphene	8001352	0.73	0.0002	0.21	0.0002	0.00073 a,c	0.00075 a,c
Total Number of Criteria ^h		22	21	22	20	92	90

Footnotes to Table in Paragraph (b)(1):

a. Criteria revised to reflect the Agency q1* or RED, as contained in the Integrated Risk Information System (IRIS) as of October 1, 1998. The fish tissue bioconcentration factor (B) from the 1980 documents was retained in each case.

b. Criteria apply to California waters except for those waters subject to objectives in Tables III-2A and III-2B of the San Francisco Regional Water Quality Control Board's (SFRWQCB) 1986 Basin Plan, that were adopted by the SFRWQCB and the State Water Resources Control Board, approved by EPA, and which continue to apply.

c. Criteria are based on carcinogenicity of 10⁻⁶ risk.

d. Criteria Maximum Concentration (CMC) equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects. Criteria Continuous Concentration (CCC) equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. µg/L equals micrograms per liter.

e. Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. The equations are provided in matrix at paragraph (b)(2) of this section. Values displayed above in the matrix correspond to a total hardness of 100 mg/l.

f. Freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Values displayed above in the matrix correspond to a pH of 7.8. CMC = $\exp(1.005(\text{pH}) - 4.869)$. CCC = $\exp(1.005(\text{pH}) - 5.134)$.

g. This criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5-80-019), Chlordane (EPA 440/5-80-027), DDT (EPA 440/5-80-038), Endosulfan (EPA 440/5-80-046), Endrin (EPA 440/5-80-047), Heptachlor (440/5-80-052), Hexachlorocyclohexane (EPA 440/5-80-054), Silver (EPA 440/5-80-071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a "CMC" derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

h. These totals simply sum the criteria in each column. For aquatic life, there are 23 priority toxic pollutants with some type of freshwater or saltwater, acute or chronic criteria. For human health, there are 92 priority toxic pollutants with either "water + organism" or "organism only" criteria. Note that these totals count chromium as one pollutant even though EPA has developed criteria based on two valence states. In the matrix, EPA has assigned numbers 5a and 5b to the criteria for chromium to reflect the fact that the list of 126 priority pollutants includes only a single listing for chromium.

i. Criteria for these metals are expressed as a function of the water-effect ratio, WER, as provided in paragraph (c) of this section. CMC

= column B1 or C1 value x WER; CCC = column B2 or C2 value x WER.

j. No criterion for protection of human health from consumption of aquatic organisms (excluding water) was presented in the 1980 criteria document or in the 1986 Quality Criteria for Water. Nevertheless, sufficient information was presented in the 1980 document to allow a calculation of a criterion, even though the results of such a calculation were not shown in the document.

k. The CWA 304(a) criterion for asbestos is the MCL.

l. [Reserved]

m. These freshwater and saltwater criteria for metals are expressed in terms of the dissolved fraction of the metal in the water column. Criterion values were calculated by using EPA's Clean Water Act 304(a) guidance values (described in the total recoverable fraction) and then applying the conversion factors in § 131.36(b)(1) and (2).

n. EPA is not promulgating human health criteria for these contaminants. However, permit authorities should address these contaminants in NPDES permit actions using the State's existing narrative criteria for toxics.

o. These criteria were promulgated for specific waters in California in the National Toxics Rule ("NTR"), at § 131.36. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries and waters of the State defined as inland, i.e., all surface waters of the State not ocean waters. These waters specifically include the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This section does not apply instead of the NTR for this criterion.

p. A criterion of 20 µg/l was promulgated for specific waters in California in the NTR and was promulgated in the total recoverable form. The specific waters to which the NTR criterion applies include: Waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to the mouth of the Merced River. This section does not apply instead of the NTR for this criterion. The State of California adopted and EPA approved a site specific criterion for the San Joaquin River, mouth of Merced to Vernalis; therefore, this section does not apply to these waters.

q. This criterion is expressed in the total recoverable form. This criterion was promulgated for specific waters in California in the NTR and was promulgated in the total recoverable form. The specific waters to which the NTR criterion applies include: Waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to Vernalis. This criterion does not apply instead of the NTR for these waters. This criterion applies to additional waters of the United States in the State of California pursuant to 40 CFR 131.38(c). The State of California adopted and EPA approved a site-specific criterion for the Grassland Water District, San Luis National Wildlife Refuge, and the Los Banos

State Wildlife Refuge; therefore, this criterion does not apply to these waters.

r. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries including the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This section does not apply instead of the NTR for these criteria.

s. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the Sacramento-San Joaquin Delta and waters of the State defined as inland (i.e., all surface waters of the State not bays or estuaries or ocean) that include a MUN use designation. This section does not apply instead of the NTR for these criteria.

t. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays and estuaries including San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of the State defined as inland (i.e., all surface waters of the State not bays or estuaries or ocean) without a MUN use designation. This section does not apply instead of the NTR for these criteria.

u. PCBs are a class of chemicals which include aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016, CAS numbers 53469219, 11097691, 11104282, 11141165, 12672296, 11096825, and 12674112, respectively. The aquatic life criteria apply to the sum of this set of seven aroclors.

v. This criterion applies to total PCBs, e.g., the sum of all congener or isomer or homolog or aroclor analyses.

w. This criterion has been recalculated pursuant to the 1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA-820-B-96-001, September 1996. See also Great Lakes Water Quality Initiative Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA-80-B-96-004, March 1995.

x. The State of California has adopted and EPA has approved site specific criteria for the Sacramento River (and tributaries) above Hamilton City; therefore, these criteria do not apply to these waters.

General Notes to Table in Paragraph (b)(1)

1. The table in this paragraph (b)(1) lists all of EPA's priority toxic pollutants whether or not criteria guidance are available. Blank spaces indicate the absence of national section 304(a) criteria guidance. Because of variations in chemical nomenclature systems, this listing of toxic pollutants does not duplicate the listing in Appendix A to 40 CFR Part 423-126 Priority Pollutants. EPA has added the Chemical Abstracts Service (CAS) registry numbers, which provide a unique identification for each chemical.

2. The following chemicals have organoleptic-based criteria recommendations that are not included on this chart: zinc, 3-methyl-4-chlorophenol.

3. Freshwater and saltwater aquatic life criteria apply as specified in paragraph (c)(3) of this section.

(2) Factors for Calculating Metals Criteria. Final CMC and CCC values

should be rounded to two significant figures.

$$(i) CMC = WER \times (Acute Conversion Factor) \times (\exp\{m_A[\ln(hardness)] + b_A\})$$

$$(ii) CCC = WER \times (Acute Conversion Factor) \times (\exp\{m_C[\ln(hardness)] + b_C\})$$

(iii) Table 1 to paragraph (b)(2) of this section:

Metal	m_A	b_A	m_C	b_C
Cadmium	1.128	-3.6867	0.7852	-2.715
Copper	0.9422	-1.700	0.8545	-1.702
Chromium (III)	0.8190	3.688	0.8190	1.561
Lead	1.273	-1.460	1.273	-4.705
Nickel	0.8460	2.255	0.8460	0.0584
Silver	1.72	-6.52		
Zinc	0.8473	0.884	0.8473	0.884

Note to Table 1: The term "exp" represents the base e exponential function.

(iv) Table 2 to paragraph (b)(2) of this section:

Metal	Conversion factor (CF) for freshwater acute criteria	CF for freshwater chronic criteria	CF for saltwater acute criteria	CF* for saltwater chronic criteria
Antimony	(d)	(d)	(d)	(d)
Arsenic	1.000	1.000	1.000	1.000
Beryllium	(d)	(d)	(d)	(d)
Cadmium	b 0.944	b 0.909	0.994	0.994
Chromium (III)	0.316	0.860	(d)	(d)
Chromium (VI)	0.992	0.962	0.993	0.993
Copper	0.960	0.960	0.83	0.83
Lead	b 0.791	b 0.791	0.951	0.951
Mercury				
Nickel	0.998	0.997	0.990	0.990
Selenium		(e)	0.998	0.998
Silver	0.85	(d)	0.85	(d)
Thallium	(d)	(d)	(d)	(d)
Zinc	0.978	0.986	0.946	0.946

Footnotes to Table 2 of Paragraph (b)(2):

- * Conversion Factors for chronic marine criteria are not currently available. Conversion Factors for acute marine criteria have been used for both acute and chronic marine criteria.
- b Conversion Factors for these pollutants in freshwater are hardness dependent. CFs are based on a hardness of 100 mg/l as calcium carbonate (CaCO₃). Other hardness can be used; CFs should be recalculated using the equations in table 3 to paragraph (b)(2) of this section.
- c Bioaccumulative compound and inappropriate to adjust to percent dissolved.
- d EPA has not published an aquatic life criterion value.

Note to Table 2 of Paragraph (b)(2): The term "Conversion Factor" represents the recommended conversion factor for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved

fraction in the water column. See "Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria", October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water available from Water

Resource Center, USEPA, Mailcode RC4100, M Street SW, Washington, DC, 20460 and the note to § 131.36(b)(1).

(v) Table 3 to paragraph (b)(2) of this section:

	Acute	Chronic
Cadmium	CF=1.136672—[(ln {hardness})(0.041838)]	CF = 1.101672—[(ln {hardness})(0.041838)]
Lead	CF=1.46203—[(ln {hardness})(0.145712)]	CF = 1.46203—[(ln {hardness})(0.145712)]

(c) *Applicability.* (1) The criteria in paragraph (b) of this section apply to the State's designated uses cited in paragraph (d) of this section and apply concurrently with any criteria adopted by the State, except when State regulations contain criteria which are more stringent for a particular parameter and use, or except as provided in footnotes p, q, and x to the table in paragraph (b)(1) of this section.

(2) The criteria established in this section are subject to the State's general

rules of applicability in the same way and to the same extent as are other Federally-adopted and State-adopted numeric toxics criteria when applied to the same use classifications including mixing zones, and low flow values below which numeric standards can be exceeded in flowing fresh waters.

(i) For all waters with mixing zone regulations or implementation procedures, the criteria apply at the appropriate locations within or at the boundary of the mixing zones;

otherwise the criteria apply throughout the water body including at the point of discharge into the water body.

(ii) The State shall not use a low flow value below which numeric standards can be exceeded that is less stringent than the flows in Table 4 to paragraph (c)(2) of this section for streams and rivers.

(iii) Table 4 to paragraph (c)(2) of this section:

Criteria	Design flow
Aquatic Life Acute Criteria (CMC).	1 Q 10 or 1 B 3
Aquatic Life Chronic Criteria (CCC).	7 Q 10 or 4 B 3
Human Health Criteria.	Harmonic Mean Flow

Note to Table 4 of Paragraph (c)(2): 1. CMC (Criteria Maximum Concentration) is the water quality criteria to protect against acute effects in aquatic life and is the highest instream concentration of a priority toxic pollutant consisting of a short-term average not to be exceeded more than once every three years on the average.

2. CCC (Continuous Criteria Concentration) is the water quality criteria to protect against chronic effects in aquatic life and is the highest in stream concentration of a priority toxic pollutant consisting of a 4-day average not to be exceeded more than once every three years on the average.

3. 1 Q 10 is the lowest one day flow with an average recurrence frequency of once in 10 years determined hydrologically.

4. 1 B 3 is biologically based and indicates an allowable exceedence of once every 3 years. It is determined by EPA's computerized method (DFLOW model).

5. 7 Q 10 is the lowest average 7 consecutive day low flow with an average recurrence frequency of once in 10 years determined hydrologically.

6. 4 B 3 is biologically based and indicates an allowable exceedence for 4 consecutive days once every 3 years. It is determined by EPA's computerized method (DFLOW model).

(iv) If the State does not have such a low flow value below which numeric standards do not apply, then the criteria included in paragraph (d) of this section apply at all flows.

(v) If the CMC short-term averaging period, the CCC four-day averaging period, or once in three-year frequency is inappropriate for a criterion or the site to which a criterion applies, the State may apply to EPA for approval of an alternative averaging period, frequency, and related design flow. The State must submit to EPA the bases for any alternative averaging period, frequency, and related design flow. Before approving any change, EPA will publish for public comment, a document proposing the change.

(3) The freshwater and saltwater aquatic life criteria in the matrix in paragraph (b)(1) of this section apply as follows:

(i) For waters in which the salinity is equal to or less than 1 part per thousand 95% or more of the time, the applicable criteria are the freshwater criteria in Column B;

(ii) For waters in which the salinity is equal to or greater than 10 parts per thousand 95% or more of the time, the applicable criteria are the saltwater criteria in Column C except for selenium in the San Francisco Bay estuary where the applicable criteria are the freshwater criteria in Column B (refer to footnotes p and q to the table in paragraph (b)(1) of this section); and

(iii) For waters in which the salinity is between 1 and 10 parts per thousand as defined in paragraphs (c)(3)(i) and (ii) of this section, the applicable criteria are the more stringent of the freshwater or saltwater criteria. However, the Regional Administrator may approve the use of the alternative freshwater or saltwater criteria if scientifically defensible information and data demonstrate that on a site-specific basis the biology of the water body is dominated by freshwater aquatic life and that freshwater criteria are more appropriate; or conversely, the biology of the water body is dominated by saltwater aquatic life and that saltwater criteria are more appropriate. Before approving any change, EPA will publish for public comment a document proposing the change.

(4) *Application of metals criteria.* (i) For purposes of calculating freshwater aquatic life criteria for metals from the equations in paragraph (b)(2) of this section, for waters with a hardness of 400 mg/l or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations. For waters with a hardness of over 400 mg/l as calcium carbonate, a hardness of 400 mg/l as calcium carbonate shall be used with a default Water-Effect Ratio (WER) of 1, or the actual hardness of the ambient surface water shall be used with a WER. The same provisions apply for calculating the metals criteria for the comparisons provided for in paragraph (c)(3)(iii) of this section.

(ii) The hardness values used shall be consistent with the design discharge conditions established in paragraph (c)(2) of this section for design flows and mixing zones.

(iii) The criteria for metals (compounds #1—#13 in the table in paragraph (b)(1) of this section) are expressed as dissolved except where otherwise noted. For purposes of calculating aquatic life criteria for metals from the equations in footnote i to the table in paragraph (b)(1) of this section and the equations in paragraph (b)(2) of this section, the water effect

ratio is generally computed as a specific pollutant's acute or chronic toxicity value measured in water from the site covered by the standard, divided by the respective acute or chronic toxicity value in laboratory dilution water. To use a water effect ratio other than the default of 1, the WER must be determined as set forth in Interim Guidance on Determination and Use of Water Effect Ratios, U.S. EPA Office of Water, EPA-823-B-94-001, February 1994, or alternatively, other scientifically defensible methods adopted by the State as part of its water quality standards program and approved by EPA. For calculation of criteria using site-specific values for both the hardness and the water effect ratio, the hardness used in the equations in paragraph (b)(2) of this section must be determined as required in paragraph (c)(4)(ii) of this section. Water hardness must be calculated from the measured calcium and magnesium ions present, and the ratio of calcium to magnesium should be approximately the same in standard laboratory toxicity testing water as in the site water.

(d)(1) Except as specified in paragraph (d)(3) of this section, all waters assigned any aquatic life or human health use classifications in the Water Quality Control Plans for the various Basins of the State ("Basin Plans") adopted by the California State Water Resources Control Board ("SWRCB"), except for ocean waters covered by the Water Quality Control Plan for Ocean Waters of California ("Ocean Plan") adopted by the SWRCB with resolution Number 90-27 on March 22, 1990, are subject to the criteria in paragraph (d)(2) of this section, without exception. These criteria apply to waters identified in the Basin Plans. More particularly, these criteria apply to waters identified in the Basin Plan chapters designating beneficial uses for waters within the region. Although the State has adopted several use designations for each of these waters, for purposes of this action, the specific standards to be applied in paragraph (d)(2) of this section are based on the presence in all waters of some aquatic life designation and the presence or absence of the MUN use designation (municipal and domestic supply). (See Basin Plans for more detailed use definitions.)

(2) The criteria from the table in paragraph (b)(1) of this section apply to the water and use classifications defined in paragraph (d)(1) of this section as follows:

Water and use classification	Applicable criteria
(i) All inland waters of the United States or enclosed bays and estuaries that are waters of the United States that include a MUN use designation.	(A) Columns B1 and B2—all pollutants (B) Columns C1 and C2—all pollutants (C) Column D1—all pollutants
(ii) All inland waters of the United States or enclosed bays and estuaries that are waters of the United States that do not include a MUN use designation.	(A) Columns B1 and B2—all pollutants (B) Columns C1 and C2—all pollutants (C) Column D2—all pollutants

(3) Nothing in this section is intended to apply instead of specific criteria, including specific criteria for the San Francisco Bay estuary, promulgated for California in the National Toxics Rule at § 131.36.

(4) The human health criteria shall be applied at the State-adopted 10 (-6) risk level.

(5) Nothing in this section applies to waters located in Indian Country.

(e) *Schedules of compliance.* (1) It is presumed that new and existing point source dischargers will promptly comply with any new or more restrictive water quality-based effluent limitations ("WQBELs") based on the water quality criteria set forth in this section.

(2) When a permit issued on or after May 18, 2000 to a new discharger contains a WQBEL based on water quality criteria set forth in paragraph (b) of this section, the permittee shall comply with such WQBEL upon the commencement of the discharge. A new discharger is defined as any building, structure, facility, or installation from which there is or may be a "discharge of pollutants" (as defined in 40 CFR 122.2) to the State of California's inland surface waters or enclosed bays and estuaries, the construction of which commences after May 18, 2000.

(3) Where an existing discharger reasonably believes that it will be infeasible to promptly comply with a new or more restrictive WQBEL based on the water quality criteria set forth in this section, the discharger may request approval from the permit issuing authority for a schedule of compliance.

(4) A compliance schedule shall require compliance with WQBELs based on water quality criteria set forth in paragraph (b) of this section as soon as possible, taking into account the dischargers' technical ability to achieve compliance with such WQBEL.

(5) If the schedule of compliance exceeds one year from the date of permit issuance, reissuance or modification, the schedule shall set forth interim requirements and dates for their achievement. The dates of completion between each requirement may not exceed one year. If the time necessary for completion of any requirement is more than one year and is not readily divisible into stages for completion, the permit shall require, at a minimum, specified dates for annual submission of progress reports on the status of interim requirements.

(6) In no event shall the permit issuing authority approve a schedule of compliance for a point source discharge

which exceeds five years from the date of permit issuance, reissuance, or modification, whichever is sooner. Where shorter schedules of compliance are prescribed or schedules of compliance are prohibited by law, those provisions shall govern.

(7) If a schedule of compliance exceeds the term of a permit, interim permit limits effective during the permit shall be included in the permit and addressed in the permit's fact sheet or statement of basis. The administrative record for the permit shall reflect final permit limits and final compliance dates. Final compliance dates for final permit limits, which do not occur during the term of the permit, must occur within five years from the date of issuance, reissuance or modification of the permit which initiates the compliance schedule. Where shorter schedules of compliance are prescribed or schedules of compliance are prohibited by law, those provisions shall govern.

(8) The provisions in this paragraph (e), Schedules of compliance, shall expire on May 18, 2005.

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